EARLY TRAINING ESTIMATION SYSTEM (ETES) FINAL REPORT

APPENDIX J: USER'S GUIDE: AUTOMATED PLANNING AND SCHEDULING TECHNIQUE FOR INDIVIDUAL AND COLLECTIVE TRAINING PLAN

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U. S. Army



Research Institute for the Behavioral and Social Sciences

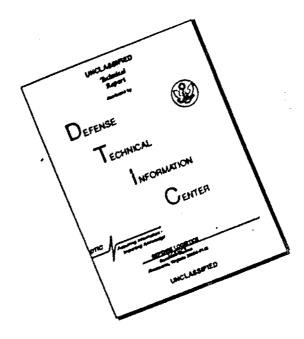
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This report describes the researce the Early Training Estimation System (ETES) automated tools for estimating trephases of the weapon system acqui components; a System Description Aids and Procedures (TEAP), and E	h and developmentem (ETES) developments an integrate aining requirements ition process. Technology (SDT valuative Technology	lopment project. The Early ed set of procedures and ents during the earliest The ETES has three major), Early Training Estimation clogy. The SDT is a data
base management system for storin	g and tracking	task and training-related

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INTRODUCTION

I.1 OBJECTIVES

This user's guide describes a set of Automated Scheduling and Planning Techniques (APST) for describing and monitoring the training development schedule for developing Army weapon systems. The guide is designed to be used with the Visi-Schedule software, which is an automated program for describing, monitoring and reporting schedule information and for conducting critical path analyses of schedule events. A data input diskette, describing the events required in the Army's Individual and Collective Training Plan (ICTP), is included as part of the APST package. This data input diskette contains detailed information on the sequential relationships among the events required for the ICTP.

This user's guide and the accompanying data input diskette should make it relatively easy for training developers to track and monitor the complex relationships among the events in the training development schedule. In addition, by providing an automated capability to modify the training schedule, it should aid training developers in responding quickly and efficiently to the frequent schedule changes which occur during the development of Army weapon systems.

The techniques described in this guide are part of the Early Training Estimation System (ETES). An overview of the other components of ETES is provided in the ETES User Guide. The other components of ETES provide aids for accomplishing several of the important training development events listed in the ICTP.

¹ For information on obtaining ETES documentation or software contact Dr. Lawrence H. O'Brien, Dynamics Research Corporation, 7 Lopez Road, Wilmington, MA 01887.

I.2 POTENTIAL USERS

This guide has been designed to be used by Army analysts or managers who are directly concerned with the establishment of training development schedules for new Army weapon systems. The primary user organizations are expected to be (1) the Training Developments Directorates and/or Combat Development Directorates in the Army schools who are designated as TRADOC proponents for new materiel systems, Program Management Offices for these new systems, particularly those individuals concerned with training development or Integrated Logistics Support, (3) the TRADOC System Manager (TSM), (4) other Army organizations concerned with training development such as the TRADOC Systems and PM Analysis Activity (TRASANA) TRADE, and contractors who must produce training materials for new systems. It is assumed that the users of this guide are thoroughly familiar with the procedures and events listed in TRADOC Reg 351-9, Individual and Collective Training Plan for Developing Systems, Policy and Procedures.

I.3 CONCEPTUAL OVERVIEW

Construction of training development schedules for emerging systems is a difficult task. Over 100 developmental events are listed in <u>TRADOC Reg 351-9</u>. The sequential relationships among these events are complex and are not described in any systematic and integrated manner in TRADOC Reg 351-9.

Further, the training scheduling process, particularly during the early phases of system development, is characterized by frequent changes and updates. Determination of the impact of these changes on the overall training development schedule is a tedious and time consuming process.

guide describes techniques for using automated VisiSchedule software to track and monitor training development. By using VisiSchedule, the training developer can quickly and efficiently respond to changes in the training development schedule. Use of the VisiSchedule program is facilitated by the inclusion of an input data diskette which (1) describes the events in the training development process (as specified in TRADOC Reg 351-9), (2) describes the temporal/sequential relationships among these events, and (3) lists the expected duration of these events for a "typical" major Army weapons system. diskette significantly reduces data input requirements. In addition, it eliminates the need for an analysis of the

complex sequential relationships among training development events which are either implicitly or explicitly specified in TRADOC 351-9.

Capabilities of VisiSchedule Software

As applied to the training development process, the VisiSchedule software can be viewed as providing the following capabilities:

- (1) Allows users to systematically describe an integrated training development schedule including information on training development events, the sequential relationships among these events, the duration of these events, the manpower (by labor category) required to accomplish each event, and the costs (that is, salaries) of this manpower.
- (2) Allows users to quickly determine the impact of changes to any of the above information.
- (3) Allows users to identify the "critical path" in the training development schedule. A "critical" event is one whose delay would impact completion of the whole project.
- (4) Allows user to aggregate events to determine total manpower requirements (by paygrade or occupational specialty) and to determine total training development costs.

I.4 PROCEDURAL OVERVIEW

An overview of the procedures for using the automated planning and scheduling techniques is provided in Figure I-1.

The first procedure involves setting up the hardware and software needed to run the automated techniques. As part of this procedure, the VisiSchedule software and the accompanying input data diskette, describing the ICTP events and their interrelationships, are entered into the computer.

In the next three procedures (2.1 to 2.3), the data on the input data diskette describing the ICTP events, their interrelationships, and their durations is reviewed by the user. If the user feels that the existing data is accept-

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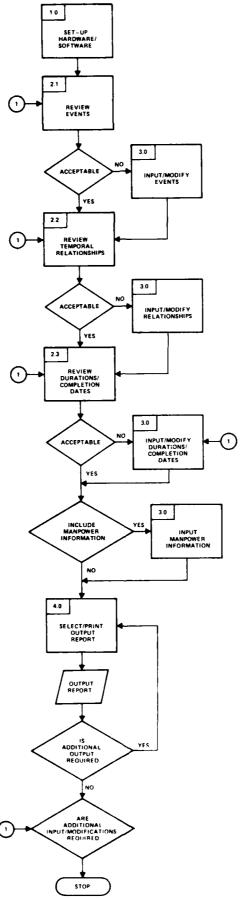


Figure 1-1. Overview of Procedures for Using Automated Planning and Scheduling Techniques.

able and, thus, is an accurate description of his/her training development schedule, the user can proceed directly to the output report procedure (4.0) and obtain a printed output of a complete training development schedule. However, it is more likely that the user will want to change the durations or completion deadlines of some of the events but the events themselves and their interrelationships are less likely to require modifications.

If modifications are required, they may be made using the methods described in procedures 3.1 to 3.4. Procedure 3.4 allows users to enter and/or modify data on manpower requirements and costs. Information on manpower requirements must be entered by the user since this information is too system specific to include in the input data diskette.

In Procedure 4.0, the user may select from one of four different output reports to describe the traning development schedule. After examining these outputs, the user may wish to conduct tradeoff analyses or sensitivity analyses of the schedule input variables. This can be accomplished by changing the input parameters through procedures 2.0 and 3.0.

I.5 ORGANIZATION OF GUIDE

The remainder of this guide is divided into five sections. Section 1.0 describes procedures for setting up hardware/software. Section 2.0 describes procedures for reviewing the information in the input data diskette, including information on the ICTP events, their interrelationships, their durations/completion dates, and the level of effort required to carry them out. Section 3.0 describes procedures for modifying the information on the input data diskette or for entering additional information. Section 4.0 describes procedures for selecting and printing the four types of output reports. Section 5.0 describes some of the different ways of using the outputs of the automated planning and scheduling techniques. Section 6.0 describes an example application of APST. This example application allows user's to modify the training development schedule contained on the APST input data diskette.

The purpose of this guide is to outline procedures for using VisiSchedule to plan and monitor the training development schedule. The guide is not intended to be a substitute for the VisiSchedule manual. The user should have this manual on hand at all times during the use of the automated planning and scheduling techniques. The VisiSchedule manual will become increasingly important as the level and sophistication of the user's applications increase.

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SECTION 1 - SET-UP HARDWARE/SOFTWARE

Before using the automated planning and scheduling techniques the user must (a) insure that he/she has the proper documentation, hardware, and software and (b) must load the VisiSchedule software.

1.1 DOCUMENTATION REQUIREMENTS

The user should have the following documents on-hand during the use of the automated planning and scheduling techniques.

- User's Guide to Planning and Scheduling Techniques for the Individual and Collective Training Plan (this document).
- VisiSchedule: User's Guide for the APPLE III, VisiCorp 1982.
- TRADOC Reg. 351-9, <u>Individual and Collective</u>
 Training Plan for Developing Systems Policy and
 Procedures (see Appendix A).

Additional guidance on early training estimation for developing systems is provided in the <u>Early Training</u> Estimation System (ETES) User Guide.

1.2 HARDWARE REQUIREMENTS

To use the automated planning and scheduling techniques, you need an Apple III computer with:

- 128K bytes or more of RAM memory.
- A video monitor. The monitor can be black and white or color. However, the program does not produce color images.
- At least two disk drives. In addition to the built-in drive, you need one to three Apple III disk drives, or a ProFile or Corvus hard disk. If you are using a hard disk unit, you will need to

load the corresponding driver software. See Appendix C in the VisiSchedule manual for instructions.

 A printer. See Appendix B in the VisiSchedule manual for a list of the printers and interface cards that have been tested with the program. Appendix C in the VisiSchedule manual explains how to load device drivers.

If you are using your Apple for the first time, be sure to follow the Apple III Owner's Guide for instructions on how to connect the computer, the monitor, and an extra floppy disk drive. If you have a hard disk, follow the manufacturer's instructions to connect it to your system.

1.3 SOFTWARE REQUIREMENTS

To use the automated planning and scheduling techniques, you need:

- The VisiSchedule Program Diskette #1 and Program Diskette #2. These diskettes are included in the VisiSchedule package.
- The ICTP input data diskette.

1.4 LOADING THE SOFTWARE

1.4.1 General Instructions for Handling Diskettes

To insert a diskette, open the disk drive and slip the diskette into the slot with the label facing upward as shown in Figure 1-1. The edge of the diskette with the oval cutout should enter the drive first; the edge with the lavel should enter face up and last. Gently push the diskette into the drive; do not bend it. Close the drive door firmly.

To remove the diskette, open the door and pull the diskette straight out of the slot. If you leave a diskette in a drive for long periods without use, it it a good idea to open the door so the read/write head does not rest on the diskette.

NEVER REMOVE A DISKETTE WHILE THE RED LIGHT UNDER THE DOOR IS ON. This can permanently damage the diskette and is



Figure 1-1 Inserting a Diskette

almost certain to destroy the information on it. You may be able to reuse such a diskette, but you will not be able to recover the lost data.

1.4.2 Loading the VisiSchedule Software and Input Data Diskette

If you have an Apple Profile or a Corvus hard disk unit in addition to your Apple III, copy all of the files from the VisiSchedule ICTP input data diskette onto your hard disk before loading the VisiSchedule program. Use the copy files command on the Apple III Utilities diskette. The procedure is explained in the Apple III Owner's Guide.

Now you are ready to load the VisiSchedule program.

- 1. Turn on the power to your monitor.
- With the computer power turned off, place the VisiSchedule Program Diskette #1 in the built-in drive and close the door. Press the switch on the back left side of the computer to turn on the power.
- 3. After a few seconds, you will see Apple III SOS copyright information on the screen. Then the screen will switch to the message: "Put Program Disk #2 in built-in drive. Press Return".
- 4. Wait until the red disk drive light goes out. Then remove Program Diskette #1 and insert Program Diskette #2 in the built-in drive. Insert the ICTP input data diskette in drive #2 (unless you already copied the ICTP input data diskette into your hard disk). Close both disk drive doors, and press the RETURN key. After about 40 seconds, the VisiSchedule Startup menu should appear on the screen.
- 5. Hit Continue, this will move you to the Main Menu. (If necessary, see Section 1.5 which describes procedures for using menus.)
- 6. Load the ICTP input data diskette into memory using the procedures listed in Section 1.6.

1.5 GENERAL OPERATIONAL PROCEDURES

1.5.1 The Apple III Keyboard

Figure 1-2 shows the computer keyboard. You will use all the keys, except the RESET key, regularly with the

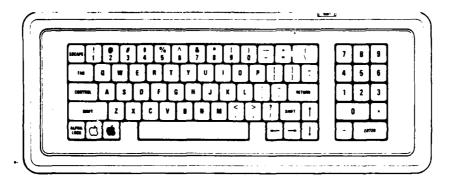


Figure 1-2 The Apple III Keyboard

VisiSchedule program. Table 1-1 lists the special keys and their uses in the VisiSchedule program.

1.5.2 General Guidelines for Using VisiSchedule Software

The VisiSchedule options are listed in menus. Like restaurant menus, VisiSchedule menus list a set of items from which you may choose. A typical menu is shown in Figure 1-3.

To select a menu option, you must highlight it with the cursor and then press the RETURN key. The cursor is a highlighted area on the screen, as shown in Figure 1-3. It moves left and right when you press the + and + keys. The cursor moves up or down when you press the + or + keys or when you press the space bar. In the figure, the cursor is highlighting the word LOAD.

You can move the cursor in one of two ways. You can use the arrow keys or the space bar, or you can type the first letter of the option. You actually select a highlighted option when you press the RETURN key.

The Cursor

If you just loaded the program and have not pressed any keys, the cursor is highlighting the word CONTINUE as shown in Figure 1-4. The top line of the menu contains a longer description, called the long prompt, of the option that the cursor is highlighted. With the cursor on CONTINUE, the long prompt reads CONTINUE WITH DATE AND NAME AS SHOWN.

Press the + key on the keyboard. The cursor moves to the word TODAY. The long prompt changes to TODAYS DATE. Pressing the + key moves the cursor to the right, while pressing the + key moves it to the left.

Continue to press the + key until the cursor reaches the last option on the top line: CURRENCY. Now press the + key once more. The cursor jumps down to the option at the right end of the bottom line. Press the + key down again to make the cursor jump to the first option in the top line. This is called wraparound.

Cursor wraparound works in both directions. Press the + key when the cursor is at the upper left corner of the menu. It jumps back to the last option on the bottom row.

Move the cursor to TODAY, and press the + key. The cursor jumps to QUIT. Press the + key and the cursor jumps back to

Table 1-1 Special Key Usage

Key	Usage
← →	Moves the cursor from one menu option or list entry to another in a horizontal direction. During data entry, the ← key erases characters for correction.
••	Moves the cursor from one menu option or list entry to another in a vertical direction.
CONTROL-P	Prints the current contents of the screen on the device specified by PRINTER, which is a file within the SOS DRIVER file on Program Diskette #1. See Appendix C, Changing Device Drivers for more information. If SILENTYPE is loaded instead of PRINTER, CONTROL-P prints on the Apple Silentype TM .
	Hold the CONTROL key down while pressing the P key to activate this function.
CONTROL-RESET	WARNING: DO NOT PRESS THE CONTROL- RESET KEY COMBINATION until you have exited the VisiSchedule program. Pressing these keys causes the program to attempt to restart without saving changed data.
ESCAPE	Cancels some executing functions such as report printing, and cancels all data entry without making a change to the current value.
RETURN	Selects the option or list item to which the cursor currently points. After using the Quit option from the Main menu to exit from the VisiSchedule program, the RETURN key restarts the program.
SPACE BAR	Marks an item for selection in lists that allow multi- ple selection. Moves the cursor up or down within a menu.
D,W,M,Y	Specifies day, week, month, or year for relative dates.
+ or -	Indicates a relative date. + is future and - is past. Is followed by a number and D, W, M, or Y.
/	Jumps to the next field in a date entry. In job names, separates the slash tag from the main part of the name.

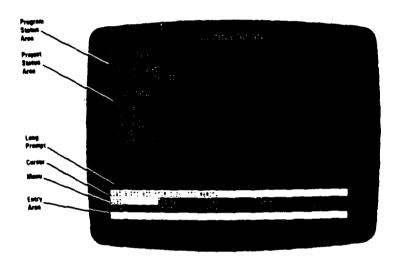


Figure 1-3 Typical VisiSchedule Menu and the Cursor

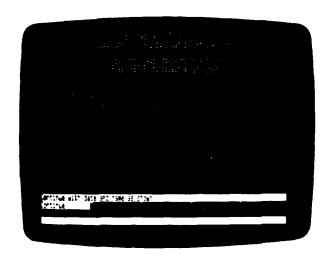


Figure 1-4 Startup Menu

the top line, to CURRENCY. When you press the + with the cursor in the top line, the cursor jumps to the option immediately below or, if there is no option immediately below, to the first option below and to the right. Conversely, if the cursor is in the bottom line and you press the + key, the cursor jumps to the option immediately above or to the first option above and to the left.

You can use the space bar rather than the \dagger or \dagger keys if you find it more convenient. The space bar switches the cursor back and forth between menu lines. With the arrow keys or the space bar, you can quickly move the cursor to any desired option.

You can also move the cursor by typing the first letter of your selection from the menu. For example, type R - the cursor jumps to REPORTER. If more than one selection begins with the same letter, the cursor jumps to the next option that begins with the letter. The search sequence is left to right, top to bottom, and back to the top left.

Do not press the RETURN key yet. RETURN has a function as you will see in a moment.

Selecting a Menu Item

Moving the cursor to a menu option causes no action to take place. To select a menu option, you must move the cursor to the option and then press the RETURN key.

To illustrate, move the cursor to CONTINUE and press the RETURN key. The main menu, as shown in Figure 1-5, replaces the Startup menu.

1.6 LOADING THE ICTP INPUT DATA DISKETTE INTO MEMORY

Before using the VisiSchedule software for automated training scheduling, the ICTP input data diskette must be loaded into memory. This is accomplished by the following procedures:

- Select the LOAD option from the Main menu (see page 3-16 in VisiSchedule manual).
- Select ICTP.DATA from the list of files menu (see page 3-18).

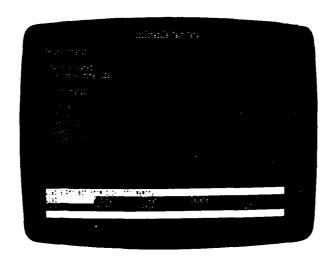


Figure 1-5 Main Menu

The program will then return you to the Main menu indicating that the ICTP input data diskette has been successfully loaded into memory.

SECTION 2 - REVIEW DATA ELEMENTS

The individual and Collective Training Plan (ICTP) consists of a set of training-related activities which must parallel the development of an Army Weapon System. The development of an Army weapon system (including ICTP development) is represented by the Life Cycle System Management Model (LCSMM), depicted in Figure 2-1. The LCSMM is an event-oriented model which depicts a sequence of key milestone decisions (e.g., approval by DSARC's) and the events (e.g., operational and developmental testing) or activities (e.g., training planning) which support these decisions.

The LCSMM is, by itself, inadequate to effectively manage a process like ICTP for several reasons, including:

- Failure to provide sufficient details regarding the nature of activities comprising ICTP (ICTP is represented only generally; see events 4A, 25A, 28, 30, 50, 56, 57A, 92, 93, and 104).
- Lack of information concerning the duration of activities and/or the consequences of delays in completing specific requirements.

During this step, each of the events comprising ICTP development contained on the input data diskette are reviewed. These events include both the key events of ICTP as well as "referent" events which are external to ICTP development but which provide a framework for completing ICTP events (for example, ASARC/DSARC 1). If changes to the data on the input data diskette are required, these changes can be made with the procedures listed in Section 3.0. The automated planning and scheduling technique (APST) will be most effective if each event included meets the following criteria:

- Is discrete and has clearly definable starting and ending points,
- Has identifiable prerequisite and/or successor activities,

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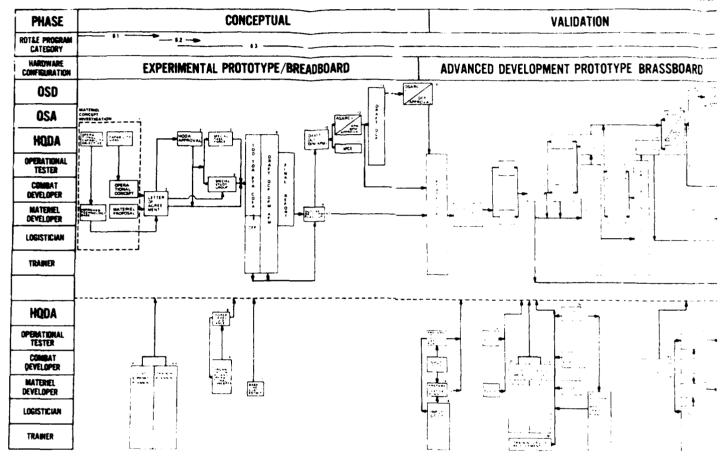
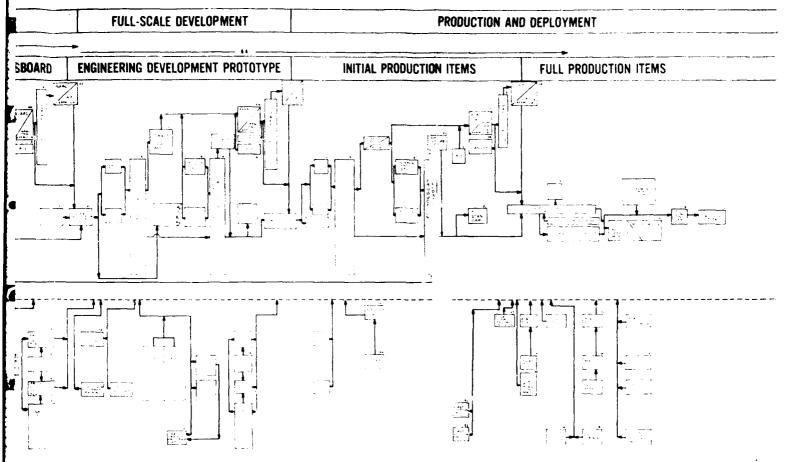


Figure 21 L

EM MANAGEMENT MODEL



jure 2-1. LCSMM.

- Duration can be estimated, and
- Level of effort required to complete event can be estimated. (This information is only needed if you want to include information on manpower resource requirements in your training development schedule.)

APST uses this information about each job to construct an overall project plan and schedule. (See Section 2.5).

2.1 REVIEW EVENTS

Each event included in the input data diskette was derived from TRADOC Regulation 351-9, Individual and Collective Training Plan for Developing Systems - Policy and Procedures. Specifically, the events were taken from the Product Oriented Planning Schedules contained in Appendix C, detailing 16 separate development streams in the following areas:

- Skill Performance Aids (SPAS)
- Individual Training Plans (ITP)
- Unit Training
- Army Correspondence Course Program (ACCP)
- Army-wide Training Literature Program (ATLP)
- Support of Units Training Plan (SUTP)¹
- Soldier's Manuals (SM), Trainer's guides (TG), and Job Books (JB)
- Skill Qualification Test (SQT)
- Training Extension Course (TEC)
- Training Devices (TD)

¹ Since Support of Units Training Plan is included as part of Soldiers Manual, it is not treated as a separate development stream in the schedule.

- Department of the Army Audiovisual Production Programs (DAAPP)
- Facilities, Ranges, and Real Property
- Training Ammunition
- New Equipment Training (NET)
- Collective Training (CT), and Army Training and Evaluation Program (ARTEP)
- Cost and Training Effectiveness Analysis (CTEA)

Appendix A contains the Product Oriented Planning Schedules listed in TRADOC Regulation 351-9. In addition to the events prescribed in TRADOC Reg 351-9, a number of milestone reference events, most of which are related to the LCSMM, are included in the ICTP schedule. These referent events (e.g., ASARC/DSARC I, ROC), while not listed as part of the ICTP Product Oriented Planning Schedules, are used as reference points for describing the timing of the events listed in the schedules.

The complete list of events included in the ICTP Input Data Diskette planning is presented in Table 2-1. The events are numbered and are listed in rough chronological order. Each event is referenced to Appendix C of TRADOC Regulation 351-9 which is contained in Appendix A. Table 2-2 also provides a description of these events using the VisiSchedule Job Description Report Format.

The user should review all events to:

- Make sure that no events are omitted that may actually be required
- Identify events which may not be relevant to the particular system being studied. Procedures for adding or deleting events are described in Section 3.

An additional copy of Table 2-2 is presented in Appendix B. This copy can be used as a worksheet for recording changes or additions to the ICTP events contained on the input data diskette.

*	EVENT/ACTIVITY	DURATION	REF PG.	COMMENTS
l.	Conduct Collective FEA for ARTEP	2 months (est)	C-16(1) pg. 39	inputs to LOA (5) and RFP (13)
2.	Prepare draft CT concept	l month (est)	C-16(2) pg. 39	incorporated in UICTP (5), follows CFEA (1)
<u>~</u>	Identify I&C Tasks for Unit Training	l month (est)	C-4(1) pg. 26	incorporated in OICTP (5)
4	Develop a prelim- inary CTEA	2 months (est)	C-17(1) pg. 41	inputs to COEA and LOA (5)
5.	LOA/OICTP	3 months (est)		
9	Develop Training alternatives based on CTEA	l month (est)	C-17(2) pg. 41	after LOA(5), before contractor FEA (15)
7.	Draft NETP	l month	C-15(1) pg. 37	inputs to PMP (8)
φ.	PMP (Conceptual Phase)	3 months (est)		after LOA/OICTP (5)
. 6	Review Draft NETP	l month	C-15(2) pg. 38	<pre>immediately follows NETP (7)</pre>
10.	ASARC 1/DSARC 1	l month (est)		after PMP (8)
11.	ITP Proposal for each MOS	l month (est)	C-3(1) pg. 24	precedes initiation of resident training (97) by at least 30 months (also see 130)

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Table 2.1 ICTP Event Requirements.

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Table 2.1 (continued)

after LSA/FEA from con-

C-9(1) pg. 31

1 month (est)

Review FEA for SQT

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TG, & JB

tractor (15)

tractor (15)

*	EVENT/ACTIVITY	DURATION	REF PG.	COMMENTS
23.	Review FEA for DAAP	1 month (est)	C-12(1) pg. 34	after LSA/FEA from con- tractor (15)
24.	Review FEA for facil- ities reqquirments	l month (est)	C-13(1) pg. 34	after LSA/FEA from con- tractor (15)
25.	Prepare CT package for critical tasks (for OT 1)	l month (est)	C-16(3) pg. 29	before OT 1 (29) after CT concept (2)
26.	Prepare TD LOA	l month (est)	C-11(2) pg. 33	prior to DT/OT 1 (29)
27.	Submit construction requirements to MACOM	l month (est)	C-13(2) pg. 34	5 years before starting resident training (97) (also see 26)
28.	Task DEH to develop construction require- ments	l month(est)	C-13(3) pg. 34	prior to OT 1 (29)
29.	Conduct OT 1	6 months(est)		
30.	Validate ammo require- ments at OT l	2 months (est)	C-14(2) pg. 36	concurrent with OT 1 (29)
31.	Develop/Validate PUEP (SPAs) at OT 1	2 months (est)	C-2(3) pg. 23	concurrent with OT 1 (29)
32.	Validate TEC require- ments at OT l	2 months (est)	C-10(2) pg. 33	concurrent with OT 1 (29)

Table 2.1 (continued)

*	EVENT/ACTIVITY	DUR AT ION	REF PG.	COMMENTS
33.	Evaluate CT Package at OT l	2 months (est)	C-16(4) pg. 39	concurrent with OT 1 (29)
34.	Validate TD concept at OT l	2 months (est)	C-11(3) pg. 33	concurrent with OT 1 (29)
35.	Validate ATLP chanyes at OT l	2 months (est)	C-6(2) pg. 28	concurrent with OT 1 (29)
36.	Validate DAAPP requirements at OT l	2 months (est)	C-13(2) pg. 34	concurrent with OT 1 (29)
37.	Validate construction requirements at OT l	2 months (est)	C-13(4) pg. 35	concurrent with OT 1 (29)
%E 8-10	Include ammo requirements in ROC	l month (est)	C-14(3) pg. 36	input to ROC (45)
39.	Submit TEC require- ments to ATSC .	l month (est)	C-10(3) pg. 32	23 months before NET (65) start date (also see 127)
40.	Staff planners course (DARCOM) for NET	2 months (est)	C-15(3) pg. 32	prior to OT 2 (69)
41.	Mission & collective task analysis	2 months (est)	C-16(5) pg. 40	after OT 1 (29)
42.	Update CTEA (DVAL Phase)	2 months (est)	C-17(3) pg. 41	after OT 1 (29), before DSARC 2 (49)

Table 2.1 (continued)

#	EVENT/ACTIVITY	DURATION	REF PG.	COMMENTS
43.	Submit DAAPP require- ments to ATSC	l month (est)	C-12(3) pg. 34	6 1/2 to 18 1/2 months prior to NET (65) start date
44.	Refine CT & CT support requirements	l month (est)	C-16(6) pg. 40	Input to ROC (45)
45.	ROC	l month (est)		
46.	Submit FBOIP (ammo) for CTA	l month (est)	C-14(4) pg. 36	concurrent with ROC (45)
47.	TUR/LR Development	l month (est)	C-11(6) pg. 33	concurrent with ROC (45)
48.	DA approval of DAAPP requirements	l month (est)	C-12(4) pg. 34	1 to 12 morths before NET (65) start date
49.	ASARC/DSARC 2	l month (est)		after ROC, before OT 2 (69)
50.	Key instructor & personnel trng.	l month (est)	C-15(4) pg. 38	prior to NET start (65) date
51.	Review/revise TEC requirements	<pre>l month (est)</pre>	C-10(4) pg. 32	prior to award of TEC development contract (54)
52.	Ammo input to WARS	l month (est)	C-14(5) pg. 36	after ROC (45)
53.	Prepare SUW for DEP (SPAs)	l month (est)	C-2(4) pg. 23	inputs to FSD RFP, before OT 2 (69)

Table 2.1 (continued)

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Table 2.1 (continued)

package (ARTEP)

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*	EVENT/ACTIVITY	DURATION	REF PG.	COMMENTS
64.	Idenfity training issues for OT 2 (as a result of CTEA update)	l month (est)	C-17(4) pg. 41	follows CTEA update (42), before OT 2 (69)
65.	NET start for OT 2/NETT	3 months (est)	C-15(6) pg. 38	3 months (est) prior to to OT 2 (69)
.99	DAAPP distribution complete	<pre>l month(est)</pre>	C-12(6) pg. 34	concurrent with NET (65) start date
• 29	Course administrative data (CAD) for ITP	l month (est)	C-3(4) pg. 25	18-30 mos. before resident training start (97) (also see 131)
68.	Develop subcourses for ACCP	2 months (est)	C-5(2) pg. 28	prior to OT 2 (69)
.69	Conduct OT 2	6 months (est)		after ASARC/DSARC II (49)
70.	Validate/test ammo at OT 2	2 months (est)	C-14(7) pg. 36	concurrent with OT 2 (69)
71.	Validate TEC lessons at OT 2	2 months (est)	C-10(7) pg. 32	concurrent with OT 2 (69)
72.	Validate CT package (ARTEP) at OT 2	2 months (est)	C-16(8) pg. 40	concurrent with OT 2 (69)
7 3.	Validate effective- ness of TD at OT 2	2 months (est)	C-11 (7) pg. 33	concurrent with OT 2 (69)

Table 2.1 (continued)

Table 2.1 (continued)

after DSARC 3 (80), before DSARC 3a (90)

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C-17(6) pg.

2 months (est)

Finalize CTEA (P/U)

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Table 2.1 (continued)

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Table 2.1 (continued)

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Table 2.1 (continued)

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completed by 9 after FUE (III)

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C-9(2) pg.

3 months (est)

Soft Troop Validation

Validation

SUT CRM (116)

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	*	EVENT/ACTIVITY	DURATION	REF PG.	COMMENTS
	116.	116. SOT CRM to ATSC	l month (est)	C-9(3) pg. 31	9 months after FUE (111)
	117.	117. SOT score templates to ATSC	l month	C-9(5) pg. 31	10 months after FUE (111)
	118.	118. SQT distribution complete	3 months	C-9(4&6) pg. 31	12 months after FUE (111)
	119.	119. Evaluate ARTEP & CT package	12 months	C-16(10) pg. 40	12 months after FUE (111)
	120.	120. Prepare coordination draft ARTEP	6 months (est)	C-16(11) pg. 40	18 to 24 months after FUE (111)
2-1	121.	121. Provide NET/ETM/ SPAS to units	l month (est)	C-2(12) pg. 23	after FUE (119), before IOC (122)
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122. Initial Operational Capability (IOC)

Table 2.1 (continued)

Table 2.2 ICTP Job Description Report.

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Job #1, CFEA FOR ARTEP
                                         **** CRITICAL ****
         Duration = 2 Veeks
                                       Earliest start = 1/1/82
   Work Completed = 0 Veeks
                                     Earliest finish = 1/15/82
 On critical path = Yes
                                        Latest start = 1/1/82
      Slack time - none
                                        Latest finish = 1/15/82
    Prerequisites = none
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #2, DRAFT CT CONCEPT
                                         **** CRITICAL ****
        Duration = 1 Week
                                       Earliest start = 1/15/82
   Work Completed = 0 Weeks
                                       Earliest finish = 1/22/82
 On critical path = Yes
                                         Latest start = 1/15/82
      Slack time = none
                                         Latest finish = 1/22/82
    Prerequisites = Job 81, CFEA FOR ARTEP
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #3, IDENT I&C TASKS FOR UNIT TRNG
                                       Earliest start = 1/ 1/82
       Duration = 1 Week
                                Earliest finish = 1/8/82
   Work Completed = 0 Weeks
  On critical path = No
                                       Latest start = 1/13/82
       Slack time = 2 Weeks
                                       Latest finish = 1/22/82
    Prerequisites = none
   Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #4, DEVELOP PRELIMINARY CTEA
------
       Duration = 2 Veeks
                                       Earliest start = 1/ 1/82
   Work Completed = 0 Veeks
                                      Earliest finish = 1/15/82
  On critical path = No
                                         Latest start = 1/8/82
       Slack time = 1 Week
                                        Latest finish = 1/22/82
    Prerequisites = none
   Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #5, LOA/OICTP
                                         **** CRITICAL ****
         Duration = 3 Weeks
                                       Earliest start = 1/22.82
   Work Completed = 0 Weeks
                                      Earliest finish = 2/12/82
  On critical path - Yes
                                         Latest start = 1/22/82
       Slack time = none
                                         Latest finish = 2/12/82
    Prerequisites = Job #2, DRAFT CT CONCEPT
                   Job #3. IDENT 145 TASKS FOR UNIT TRNG 2-19
```

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Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job $6, DEV TRNG ALTER BASED ON CTEA
-----
                                       Earliest start = 2/12/82
        Duration = 1 Week
                                      Earliest finish = 2/19/82
   Work Completed = 0 Weeks
                                         Latest start = 3/26/82
 On critical path = No
     Slack time = 6 Weeks
                                        Latest finish = 4/2/82
    Prerequisites = Job 04, DEVELOP PRELIMINARY CTEA
                  Job #5, LOA/OICTP
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #7, DRAFT NETP
   Duration = 1 Week
Work Completed = 0 Weeks
                                       Earliest start = 1/1/82
                                     Earliest finish = 1/8/82
Latest start = 2/5/82
 On critical path = No
                                        Latest finish = 2/12/82
      Slack time = 5 Weeks
    Prerequisites = none
   Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #8, PROGRAM MANAGEMENT PLAN (PMP)
                                         **** CRITICAL ****
______
                                       Earliest start = 2/12/82
         Duration = 3 Weeks
                                       Earliest finish = 3/5/82
Latest start = 2/12/82
   Work Completed = 0 Weeks
  On critical path = Yes
                                         Latest finish = 3/5/82
     Slack time = none
     Prerequisites = Job #5, LOA/OICTP
              Job #7, DRAFT NETP
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = 50
Job #9, REVIEW DRAFT NETP
-----
        Duration = 1 Week
                                        Earliest start = 1/8/82
                                      Earliest finish = 1/15/82
Latest start = 2/26/82
   Work Completed = 0 Weeks
  On critical path = No
      Slack time = 7 Weeks
                                        Latest finish = 3/5/82
     Prerequisites = Job #7, DRAFT NETP
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #10, ASARC/DSARC 1
                                         **** CRITICAL ****
        Duration = 1 Week
                                       Earliest start = 3/5/82
   Work Completed = 0 Weeks
                                      Earliest finish = 3/12/82
                                         Latest start = 3/5/82
  On critical path = Yes
     Slack time = none
                                         Latest finish = 3/12/82
     Prerequisites = Job #8, PROGRAM MANAGEMENT PLAN (PMP)
                   Job #9, REVIEW DRAFT NETP
   Manpower skills = none
                               2-20
     Total effort = none
```

Manpower skills = none

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Manpower cost =: 13.0 Direct cost = 10

Job #11, INDVDL TRNG PLN PRPOSAL (ITFF)

Duration = 1 Week Earliest start = 1/ 1/82
Work Completed = 0 Weeks Earliest finish = 1/ 8/82
On critical path = No Latest start = 7/ 2/82
Slack time = 26 Weeks Latest finish = 7/ 9/82
Prerequisites = none

Manpower skills = neme
Total effort = none
Manpower cost = \$0.0

Direct cost = 10

Job #12, TRGT AUD DSCRPTN FOR SPA TMS

Duration = 1 Week Earliest start = 1/1/82
Work Completed = 0 Weeks Earliest finish = 1/8/82
On critical path = No Latest start = 3/5/82
Slack time = 9 Weeks Latest finish = 3/12/82

Prerequisites = none

Manpower skills = none

Total effort = none

Manpower cost = \$0.0

Direct cost = \$0

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Job #13, RFP/CONTRACT AWARD (AD)

**** CRITICAL ****

Duration = 3 Weeks Earliest start = 3/12/82
Work Completed = 0 Weeks Earliest finish = 4/2/82
On critical path = Yes Latest start = 3/12/82
Slack time = none Latest finish = 4/2/82

Prerequisites = Job #10, ASARC/DSARC 1

Job #12, TRGT AUD DSCRPTN FOR SPA TMS

Manpower skills = none
Total effort = none
Manpower cost = \$0.0
Direct cost = \$0

Job #14, SOW FOR SPA PDEP

Duration = 1 Week Earliest start = 3/12/82
Work Completed = 0 Weeks Earliest finish = 3/19/82
On critical path = No Latest start = 7/9/82
Slack time = 17 Weeks Latest finish = 7/16/82

Prerequisites = Job #10, ASARC/DSARC 1

Job #12, TRGT AUD DECRPTN FOR SPA TMS

Manpower skills = none
Total effort = none
Manpower cost = \$0.0
Direct cost = \$0

Job #15, CONTRACTOR LSA/FEA

**** CRITICAL T#***

Duration = 6 Weeks

Work Completed = 0 Weeks
On critical path = Yes

Slack time = rone

Earliest start = 4/2/82

Earliest finish = 5/14/82

Latest start = 4/2/82

Latest finish = 5/14/82

```
Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #16, REVIEW FEA FOR AMMO
-----
                                      Earliest start = 5/14/82
         Duration = i Week
                                      Earliest finish = 5/21/82
   Work Completed = 0 Weeks
                                        Latest start = 7/ 9/82
 On critical path = No
                                        Latest finish = 7/16/82
       Slack time = 8 Weeks
    Prerequisites = Job #15, CONTRACTOR LSA/FEA
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #17, ANALYSIS OF ITPP
                                       Earliest start = 5/14/82
         Duration = 1 Week
                                     Earliest finish = 5/21/82
   Work Completed = 0 Weeks
                                        Latest start = 7/ 9/82
  On critical path = No
                                        Latest finish = 7/16/82
      Slack time = 8 Weeks
    Prerequisites = Job #11, INDVDL TRNG PLN PRPOSAL (ITPP)
                  Job #15, CONTRACTOR LSA/FEA
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #18, REVIEW FEA FOR TEC
-----
                                      Earliest start = 5/14/82
         Duration = 1 Week
                                      Earliest finish = 5/21/82
    Work Completed = 0 Weeks
                                        Latest start = 7/ 9/82
  On critical path = No
                                        Latest finish = 7/16/82
       Slack time = 8 Weeks
     Prerequisites = Job #15, CONTRACTOR LSA/FEA
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
       Direct cost = $0
Job #19, REVIEW FEA FOR TRNG DEVCES(TD)
 _____
                                       Earliest start = 5/14/82
         Duration = 1 Week
                                      Earliest finish = 5/21/82
    Work Completed = 0 Weeks
                                         Latest start = 7/ 2/82
  On critical path = No
                                        Latest finish = 7/ 9/82
       Slack time = 7 Weeks
     Prerequisites = Job #15, CONTRACTOR LSA/FEA
   Manpower skills = none
      Total effort = none
     Manpower cost = $0.0
       Direct cost = $0
 Job #20, REVIEW FEA/IDENT ATLP REQUIR.
         Duration = 1 Week
                                       Earliest start = 5/14/82
    Work Completed = 0 Weeks
                                      Earliest finish = 5/21/82
  On critical path = No
                                         Latest start = 7/9/82
                                        Latest finish = 7/16/82
       Slack time = 8 Weeks
     Prerequisites = Job #15, CONTRACTOR LSA/FEA
   Manpower skills = none 2-22
     Total effort = none
```

Manpower cost = \$0.0

Job 44, DEV TRNG ALTER BASED ON CTEA

Job \$21, REVIEW FEA FOR SM, TG, & JB Duration = 2 Veeks Work Completed = 0 Veeks

Earliest start = 5/14/82 Earliest finish = 5/28/82 On critical path = No Latest start = 7/ 2/82 Slack time = 7 Weeks Latest finish = 7/14/82

Frerequisites = Job #15, CONTRACTOR LSA/FEA

Manpower skills = none Total effort = news Manpower cost = \$0.0 Direct cost = \$0

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Job #22, REVIEW FEA FOR SQT

Earliest start = 5/14/82 Duration = 1 Week Earliest finish = 5/21/82 Work Completed = 0 Weeks Latest start = 7/ 9/82 On critical path = No Latest finish = 7/16/82 Slack time = 8 Weeks

Frerequisites = Job #15, CONTRACTOR LSA/FEA

Manpower skills = none Total effort - none Manpower cost = 10.0 Direct cost = 10

Job #23, REVIEW FEA FOR DAAPP

Earliest start = 5/14/82 Duration = 1 Veek Work Completed = 0 Weeks
On critical path = No Earliest finish = 5/21/82 Latest start = 7/ 9/82 Latest finish = 7/16/82 Slack time = 8 Weeks

Prerequisites = Job #15, CONTRACTOR LSA/FEA Mannower skills = none

Total effort = none Manpower cost = \$0.0 Direct cost = \$0

Job 624, REVIEW FEA FOR FACILITIES

------Duration = 1 Week
Work Completed = 0 Weeks Earliest start = 5/14/82 Earliest finish = 5/21/82

Prerequisites = Job #15, CONTRACTOR LSA/FEA

Manpower skills = none Total effort = none Manpower cost - \$0.0 Direct cost = \$0

Job #25, PREPARE CT PACKAGE

------Earliest start = 5/14/82 Duration = 1 Week Earliest finish = 5/21/82 Work Completed = 0 Weeks Latest start = 7/ 9/82 On critical path = No Latest finish = 7/16/82 Slack time = 8 Weeks

Prerequisites = Job #2, DRAFT CT CONCEPT Job 015, CONTRACTOR LSA/FEA

Mangower skills = none Total effort = none Mangower cost = 10.0 Direct cost = \$0

Job #24, TRNG DEVICE (TD) LOA DEVELOP 2-25

**** CRITICAL ****

Work Completed = D Weeks Earliest finish = 3/28/82 Latest start = 7/ 9/82 On critical path = No Slack time = 7 Weeks Latest finish = 7/16/82 Prerequisites = Job #19, REVIEW FEA FOR TRNG DEVCES(TD) Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #27, SUBMIT CONSTRCTN REG TO MACOM **** CRITICAL **** Earliest start = 5/21/82 Duration = 1 Week Earliest finish = 5/28/82 Work Completed = 0 Weeks Latest start = 5/21/82 On critical path = Yes Latest finish = 5/28/82 Slack time = none Prerequisites = Job #24, REVIEW FEA FOR FACILITIES Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #28, TASK DEH TO DEV CONSTR REQ ------Duration = 1 Week Earliest start = 5/28/82 Work Completed = 0 Weeks
On critical path = No
Slack time = 10 Weeks Earliest finish = 6/4/82 Latest start = 8/6/82 Latest finish = 8/13/82 Prerequisites = Job #27, SUBMIT CONSTRCTN REQ TO MACOM Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #29, CONDUCT OT 1 -----Duration = 6 Weeks Earliest start = 5/28/82 Earliest finish = 7/ 9/82 Work Completed = 0 Weeks On critical path = No Latest start = 7/16/82 Slack time = 7 Weeks Latest finish = 8/27/82 Prerequisites = Job #14, SOW FOR SPA PDEP Job #15, CONTRACTOR LSA/FEA Job #16, REVIEW FEA FOR AMMO Job #18, REVIEW FEA FOR TEC Job #20, REVIEW FEA/IDENT ATLP REQUIR. Job #23, REVIEW FEA FOR DAAPP Job #25, PREPARE CT PACKAGE Job #26, TRNG DEVICE (TD) LOA DEVELOP Job #123, BETWEEN FEA (15) & OT 1 (29) Manpower skills = none

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Total effort = none

Manpower cost = \$0.0 Direct cost = \$0

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Job 430. VALIDATE AMMO REG AT OT 1
------
      Duration = 2 Veeks
```

Earliest start = 6/ 4/82 Work Completed = 0 Weeks Earliest finish = 4/18/82 On critical path = No Latest start = 8/13/82 Slack time = 10 Weeks Latest finish = 8/27/82

Prerequisites = Job 814, SOW FOR SPA PDEP Job #15, CONTRACTOR LSA/FEA Job #16, REVIEW FEA FOR AMMO Job 818, REVIEW FEA FOR TEC

Job #20, REVIEW FEATIDENT ATLP REQUIR.

Job 023, REVIEW FEA FOR DAAPP Job #25, PREPARE CT PACKAGE

Job #24, TRNG DEVICE (TD) LOA DEVELOP. Job #28, TASK DEH TO DEV CONSTR REQ

Earliest start = 6/4/82

Manpower skills - none Total effort = none Manpower cost = \$0.0 Direct cost = \$0

Job #31, VALIDATE PDEP (SPAS) AT OT 1

Duration = 2 Weeks

Work Completed - 9 Veeks Earliest finish = 6/18/82 On critical path = No Latest start = 8/13/82 Slack time - 10 Weeks Latest finish = 8/27/82

Prerequisites = Job 016, REVIEW FEA FOR AMMO Job 014, SOW FOR SPA PDEP

Job 018, REVIEW FEA FOR TEC Job 015, CONTRACTOR LSA/FEA

Job 025, PREPARE CT PACKAGE

Job #26, TRNG DEVICE (TD) LOA DEVELOP. Job #20, REVIEW FEA/IDENT ATLP REQUIR.

Job #23, REVIEW FEA FOR DAAPP

Job #28, TASK DEH TO DEV CONSTR REQ

Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0

Job #32, VALIDATE TEC REQ AT OT 1 ------

Duration = 2 Veeks Work Completed = 0 Weeks

Earliest start = 6/4/82 Earliest start = 6/4/82 Earliest finish = 6/18/82 On critical path = No Slack time = 10 Weeks Latest start = 8/13/82 Latest finish = 8/27/82

Prerequisites = Job #16, REVIEW FEA FOR AMMO Job #14, SOW FOR SPA PDEP Job 018, REVIEW FEA FOR TEC

Job #15, CONTRACTOR LSA/FEA Job #25, PREPARE CT PACKAGE

Job 026, TRNG DEVICE (TD) LOA DEVELOP Job #20, REVIEW FEA/IDENT ATLP REQUIR.

Job #23, REVIEW FEA FOR DAAPP

Job #28, TASK DEH TO DEV CONSTR REQ

Manpower skills = none Total effort = none Manpower cost = 50.0 Direct cost = 10

Job #33, EVALUATE CT PACKAGE AT OT 1

Duration = 2 Weeks Earliest start = 6/4/82 2-25 Earliest finish = 6/18/82 Work Completed = 0 Weeks
On critical path = No Latest start = 8/17/82 Slack time = 10 Veeks Latest finish = 8/27/82

```
Prerequisites = Job 016, REVIEW FEA FOR AMMO
                    Job #14, SOW FOR SPA PDEP
                    Job #18, REVIEW FEA FOR TEC
                    Job #15, CONTRACTOR LSA/FEA
                    Job #25, PREPARE CT PACKAGE
                    Job #26, TRNG DEVICE (TD) LOA DEVELOP.
                    Job #20, REVIEW FEA/IDENT ATLP REQUIR.
                    Job #23, REVIEW FEA FOR DAAPP
                    Job #28, TASK DEH TO DEV CONSTR REQ
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #34, VALIDATE TD CONCEPT AT OT 1
-----
        Duration = 2 Weeks
                                        Earliest start = 6/4/82
   Work Completed = 0 Weeks
                                       Earliest finish = 6/18/82
 On critical path = No
                                         Latest start = 8/13/82
       Slack time = 10 Weeks
                                         Latest finish = 8/27/82
    Prerequisites = Job #16, REVIEW FEA FOR AMMO
                    Job #14, SOW FOR SPA PDEP
                    Job #18. REVIEW FEA FOR TEC
                    Job #15, CONTRACTOR LSA/FEA
                    Job #25, PREPARE CT PACKAGE
                    Job #26, TRNG DEVICE (TD) LOA DEVELOP.
                    Job #20, REVIEW FEA/IDENT ATLP REQUIR.
                    Job #23, REVIEW FEA FOR DAAPP
                    Job #28, TASK DEH TO DEV CONSTR REQ
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #35, VALIDATE ATLP CHANGES AT OT 1
-----
         Duration = 2 Weeks
                                       Earliest start = 6/4/82
                                     Earliest finish = 6/18/82
   Work Completed = 0 Weeks
                                          Latest start = 8/13/82
  On critical path = No
       Slack time = 10 Weeks
                                         Latest finish = 8/27/82
     Prerequisites = Job #16, REVIEW FEA FOR AMMO
                    Job #14, SOW FOR SPA PDEP
                    Job #18, REVIEW FEA FOR TEC
                    Job #15, CONTRACTOR LSA/FEA
                    Job #25, PREPARE CT PACKAGE
                    Job #26, TRNG DEVICE (TD) LOA DEVELOP.
                    Job #20, REVIEW FEA/IDENT ATLP REQUIR.
                    Job #23, REVIEW FEA FOR DAAPP
                    Job #28, TASK DEH TO DEV CONSTR REQ
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #36, VALIDATE DAAPP REG AT OT 1
______
   Duration = 2 Weeks
Work Completed - 0 Weeks
n critical path = No
                                       Earliest start = 6/ 4/82
                                       Earliest finish = 6/18/82
  On critical path = No
                                         Latest start = 8/13/82
       Slack time = 10 Weeks
                                          Latest finish = 8/27/82
     Prerequisites = Job #14, SOW FOR SPA PDEP
                    Job #15, CONTRACTOR LSA/FEA
                    Job #16, REVIEW FEA FOR AMMO 2-26
                    Job #18, REVIEW FEA FOR TEC
                    Job #20, REVIEW FEA/IDENT ATLP REQUIR
```

Job #23, REVIEW FEA FOR DAAPP

Job 025, PREPARE CT FACKAGE

Job 026, TRNG DEVICE (TD) LOA DEVELOP.

Job 028, TASK DEH TO DEV CONSTR REQ

Manpower skills = none

Total effort = none

Manpower cost = \$0.0

Direct cost = \$0

Job #37, VALIDATE CONSTR REG AT OT 1

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-----Duration = 2 Weeks Earliest start = 6/4/82 Work Completed = 0 Veeks Earliest finish = 6/18/82 On critical path = No Latest start = 8/13/82 Slack time = 10 Weeks Latest finish = 8/27/82 Prerequisites = Job #14, SOW FOR SPA PDEP Job #15, CONTRACTOR LSA/FEA Job #16, REVIEW FEA FOR AMMO Job #18, REVIEW FEA FOR TEC Job #20, REVIEW FEA/IDENT ATLP REQUIR. Job #23, REVIEW FEA FOR DAAPP Job #25, PREPARE CT PACKAGE Job #26, TRNG DEVICE (TD) LOA DEVELOP. Job #28, TASK DEH TO DEV CONSTR REG Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0

Job #38, INCLUDE AMMO REQ IN ROC

------Duration = 1 Week Earliest start = 7/ 9/82 Work Completed = 0 Weeks Earliest finish = 7/16/82 On critical path = No Latest start = 9/10/82 Slack time = 9 Weeks Latest finish = 9/17/82 Prerequisites - Job 030 VALIDATE AMMO REQ AT OT 1 Job 629, CONDUCT OT 1 Manpower skills = none Total effort = none Manpower cost = \$0 0 2-27 Direct cost = \$0

```
Duration = 1 Week
                                      Earliest start = 7/ 9/82
  Work Completed = 0 Weeks
                                     Earliest finish = 7/16/82
                                        Latest start = 9/ 3/82
 On critical path = No
                                       Latest finish = 9/10/82
      Slack time = 8 Weeks
    Prerequisites = Job #32, VALIDATE TEC REG AT OT 1
                  Job #29, CONDUCT OT 1
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #40, STAFF PLANNER COURSE FOR NET
-----------
                                      Earliest start = 7/9/82
        Duration = 2 Weeks
   Work Completed = 0 Weeks
                                     Earliest finish = 7/23/82
                                        Latest start = 1/21/83
 On critical path = No
      Slack time = 28 Weeks
                                       Latest finish = 2/4/83
    Prerequisites = Job #9, REVIEW DRAFT NETP
                  Job #29, CONDUCT OT 1
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #41, MISSION & COLLECTIVE TASK ANAL
      Duration = 2 Weeks
                                      Earliest start = 7/ 9/82
                                     Earliest finish = 7/23/82
   Work Completed = 0 Weeks
  On critical path = No
                                        Latest start = 8/27/82
      Slack time = 7 Weeks
                                        Latest finish = 9/10/82
    Prerequisites = Job #33, EVALUATE CT PACKAGE AT OT 1
                   Job 029, CONDUCT OT 1
                   Job #124, BETWEEN OT 1 (29) & M&CTA (41)
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #42, UPDATE CTEA (DVAL PHASE)
                                      Earliest start = 7/9/82
        Duration = 2 Weeks
   Work Completed = 0 Weeks
                                     Earliest finish = 7/23/82
                                        Latest start = 2/18/83
  On critical path = No
      Slack time = 32 Weeks
                                        Latest finish = 3/ 4/83
    Prerequisites = Job 06, DEV TRNG ALTER BASED ON CTEA
                   Job #29, CONDUCT OT 1
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #43, SUBMIT DAAPP REQ TO ATSC
-----
        Duration = 1 Week
                                       Earliest start = 7/9/82
  Work Completed = 0 Weeks
On critical path = No
                                      Earliest finish = 7/16/82
                                         Latest start = 1/28/83
      Slack time = 29 Weeks
                                        Latest finish = 2/4/83
     Prerequisites = Job #36, VALIDATE DAAPP REG AT OT 1
                   Job #29, CONDUCT OT 1
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
                              2-26
      Direct cost = $0
```

Job #44, REFINE CT & CT SUPPORT REQ

```
Duration = 1 Week
                                        Earliest start = 7/23/82
   Work Completed = 0 Weeks
                                      Earliest finish = 7/30/82
 On critical path = No
Slack time = 7 Weeks
                                         Latest start = 9/10/82
                                         Latest finish = 9/17/82
    Prerequisites = Job #41, MISSION & COLLECTIVE TASK ANAL
  Manpower skills = none
     Total effort = none
    Manpower cost = 10.0
      Direct cost = $0
Job #45, ROC
-----
        Duration = 1 Week
                                       Earliest start = 7/30/82
   Work Completed = 0 Weeks
                                      Earliest finish = 8/6/82
  On critical path = No
                                         Latest start = 9/17/82
      Slack time = 7 Weeks
                                         Latest finish = 9/24/82
    Prerequisites = Job #29, CONDUCT OT 1
                    Job #34, VALIDATE TD CONCEPT AT OT 1
                    Job #38, INCLUDE AMMO REQ IN ROC
                    Job #44, REFINE CT & CT SUPPORT REQ
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = 10
Job #46, SUBMIT FBIOP (AMMO) FOR CTA
      Duration = 1 Week
                                       Earliest start = 7/30/82
   Work Completed = 0 Weeks
                                      Earliest finish = 8/6/82
                               Latest start = 12/31/82
Latest finish = 12/31/82
  On critical path = No
      Slack time = 21 Weeks
    Prerequisites = Job #24, REVIEW FEA FOR FACILITIES
                    Job #29, CONDUCT OT 1
                    Job 030, VALIDATE AMMO REQ AT OT 1
                    Job #44, REFINE CT & CT SUPPORT REQ
   Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = 10
Job #47, TDR/LR DEVELOPMENT
------
         Duration = 1 Week
                                       Earliest start = 7/30/82
   Work Completed = 0 Weeks
                                      Earliest finish = 8/6/82
  On critical path = No
                                          Latest start = 12/24/82
       Slack time = 21 Veeks
                                         Latest finish = 12/31/82
     Prerequisites = Job #29, CONDUCT OT 1
                    Job #34, VALIDATE TD CONCEPT AT OT 1
                    Job #38, INCLUDE AMMO REQ IN ROC
                    Job #44, REFINE CT & CT SUPPORT REQ
   Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #48, DA APPROVAL OF DAAPP REQ
         Duration = 1 Week
                                        Earliest start = 7/16/82
   Work Completed = 0 Weeks
                                      Earliest finish = 7/23/82
 On critical path = No
Slack time = 29 Weeks
                                         Latest start = 2/ 4/83
                                         Latest finish = 2/11/83
    Prerequisites = Job 043, SUBMIT DAAPP REQ TO ATSC
  Manpower skills = none
                                 2-29
    Total effort = none
```

Manpower cost = \$0.0

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Job #49, ASARC/DSARC 2
     Duration = 1 Week
                                       Earliest start = 8/6/82
   Work Completed = 0 Weeks
                                    Earliest finish = 8/13/82
 On critical path = No
                                        Latest start = 2/11/83
      Slack time = 27 Weeks
                                        Latest finish = 2/18/83
    Prerequisites = Job #45, ROC
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #50, KEY INSTRUCTOR/PERSONNEL TRNG
~----
        Duration = 1 Week Earliest start = 7/23/82 Completed = 0 Weeks Earliest finish = 7/30/82
   Work Completed = 0 Weeks
      On critical path = No
    Prerequisites = Job #40, STAFF PLANNER COURSE FOR NET
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #51, REVIEW/REVISE TEC REQ
        Duration = 1 W#sk
                                       Earliest start = 7/16/82
  Work Completed = 0 Weeks
On critical path = No
                                      Earliest finish = 7/23/82
                                        Latest start = 9/17/82
       Slack time = 9 Weeks
                                         Latest finish = 9/24/82
    Prerequisites = Job #39, SUBMIT TEC REQ TO ATSC
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #52, INPUT TO WARS (AMMO)
      Duration = 1 Week
                                       Earliest start = 8/6/82
                                     Earliest finish = 8/13/82
  Work Completed = 0 Weeks
On critical path = No
                                         Latest start = 12/31/82
       Slack time = 21 Weeks
                                         Latest finish = 1/ 7/83
     Prerequisites = Job #45, ROC
                   Job #46, SUBMIT FBIOP (AMMO) FOR CTA
                   Job #47, TDR/LR DEVELOPMENT
  Manpower skills = none
```

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Total effort = none Manpower cost = \$0.0

Direct cost .= 18 Job #53, PREPARE SOW FOR DEP (SPAS) -----------Duration = 1 Veek Earliest start = 8/13/82 Earliest finish = 8/20/82 Work Completed = 0 Weeks Latest start = 2/18/83 On critical path = No Slack time = 27 Weeks Latest finish = 2/25/83 Prerequisites = Job #31, VALIDATE PDEP (SPAS) AT OT 1 Job 049, ASARC/DSARC 2 Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #54, PREPARE TEC DEVELOP. CONTRACT Earliest start = 8/ 6/82 Duration = 1 Week Earliest finish = 8/13/82 Work Completed = 0 Weeks Latest start = 9/24/82 On critical path = No Slack time = 7 Weeks Latest finish = 10/ 1/82 Prerequisites - Job 951, REVIEW/REVISE TEC REQ Job #45, ROC Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #55, NMIL & NMIT FOR NET Duration = 1 Week Earliest start = 8/6/82 Earliest finish = 8/13/82 Work Completed = 0 Weeks Latest start = 2/11/83 On critical path = No Slack time = 27 Weeks Latest finish = 2/18/83 Prerequisites = Job #50, KEY INSTRUCTOR/PERSONNEL TRNG Job #45, ROC Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #56 INITIAL PRODUCTION OF DAAPP Earliest start = 7/23/82 Duration = 1 Week Earliest finish = 7/30/82 Work Completed = 0 Weeks Latest start = 2/11/83 On critical path = No Latest finish = 2/18/83 Slack time = 29 Weeks Prerequisites = Job #48, DA APPROVAL OF DAAPP REQ Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = 10 Job #57, DEVELOP AMMO Duration = 2 Weeks

Duration = 2 Weeks Earliest start = 8/13/82
Work Completed = 0 Weeks Earliest finish = 8/27/82
On critical path = No Latest start = 1/7/83
Slack time = 21 Weeks Latest finish = 1/21/83
Prerequisites = Job #52, INPUT TO WARS (AMMO)
Manpower skills = none
Total effort = none
Manpower cost = \$0 0
Direct cost = \$0

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Earliest start = 8/13/87 Duration = 1 Week Work Completed = 0 Weeks Earliest finish = 8/20/82 Latest start = 2/11/83 On critical path = No Slack time = 26 Weeks Latest finish = 2/18/83 Prerequisites = Job #54, PREPARE TEC DEVELOP. CONTRACT Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #59, DEVELOP UNIT TRNG STRATEGY -----Earliest start = 8/13/82 Duration = 2 Weeks Earliest finish = 8/27/82 Work Completed = 0 Weeks Slack time = 28 Weeks Latest start = 2/25/83On critical path = No Latest finish = 3/11/83 Prerequisites = Job #3, IDENT 1&C TASKS FOR UNIT TRNG Job #49, ASARC/DSARC 2 Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #60, SUBMT SPPT (FAC.) REQ TO MACOM -------Earliest start = 6/18/82 Duration = 1 Week Earliest finish = 6/25/82 Work Completed = 0 Weeks On critical path = No Latest start = 9/24/82Slack time = 14 Weeks Latest finish = 10/ 1/82 Prerequisites = Job #37, VALIDATE CONSTR REQ AT OT 1 Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #61, PRODUCE AMMO FOR NET ------Duration = 4 Weeks Earliest start = 8/27/82 Earliest finish = 9/24/82 Work Completed = 0 Weeks Latest start = 1/21/83 On critical path = No Slack time = 21 Weeks Latest finish = 2/18/83Prerequisites = Job #57, DEVELOP AMMO Job #45, ROC Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #62, DEVELOP/VALIDATE DEP (SPAS) _______ Earliest start = 8/20/82 Earliest finish = 9/ 3/82 On critical path = No Latest start = 2/25/83Slack time = 27 Weeks Latest finish = 3/11/83Prerequisites = Job #53, PREPARE SOW FOR DEP (SPAS)

Job #45, ROC

Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0

```
Job $63, PREPARE DRAFT CT (ARTEP) PACK.
-----
                                       Earliest start = 8/6/82
         Duration = 3 Weeks
                                       Earliest finish = 8/27/82
  Work Completed = 0 Weeks
                                        Latest start = 2/18/83
 On critical path = No
                                        Latest finish = 3/11/83
       Slack time = 28 Weeks
    Prerequisites = Job #44, REFINE CT & CT SUPPORT REQ
                   Job #45, ROC
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #64, IDEN TRNG ISSUES FOR OT 2/CTEA
-------------
                                        Earliest start = 8/6/82
        Duration = 1 Week
                                      Earliest finish = 8/13/82
   Work Completed = 0 Veeks
  On critical path = No
                                         Latest start = 3/4/83
      Slack time = 30 Weeks
                                         Latest finish = 3/11/83
    Prerequisites = Job 042, UPDATE CTEA (DVAL PHASE)
                   Job #45, ROC
   Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #45, NET START/NETT
   Duration = 3 Weeks
Work Completed = 0 Weeks
                                       Earliest start = 12/31/82
                                       Earliest finish = 1/21/83
                                         Latest start = 2/18/83
  On critical path = No
       Slack time = 7 Weeks
                                         Latest finish = 3/11/83
     Prerequisites = Job 055, NMIL & NMIT FOR NET
                    Job 656, INITIAL PRODUCTION OF DAAPP
                    Job 058, INITIATE TEC DEVELOPMENT
                    Job #41, PRODUCE AMES FOR NET
                    Job 0127, 23 MONTHS SETVEEN 039 AND 045
                    Job #128, 20 MONTHS BETVEEN #54 AND #65
   Manpower skills = none
     Total effort = none
     Manpower cos: = $0.0
       Direct cost = $0
Job #66, DAAPP DISTRIBUTION COMPLETE
-----
         Duration = 1 Veek
                                       Earliest start = 9/24/82
    Work Completed = 0 Veeks
                                       Earliest finish = 10/ 1/82
  On critical path = No
                                         Latest start = 4/ 1/83
        Slack time - 27 Weeks
                                         Latest finish = 4/8/83
     Prerequisites = Job #39, SUBMIT TEC REQ TO ATSC
                    Job 055, NMIL & NMIT FOR NET
                    Job #56, INITIAL PRODUCTION OF DAAPP
                    Job 058, INITIATE TEC DEVELOPMENT
                    Job #61, PRODUCE AMMO FOR NET
   Manpower skills = none
      Total effort = none
     Manpower cost = $0.0
       Direct cost = 10
```

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Job #67, CAD FOR ITP

Duration = 1 Week

Earliest start = 8/13/82

```
Earliest fini'h = 8/20/82
   Work Completed - 0 Weeks
                                         Latest star " 3/11/83
 On critical path = No
                                         Latest finish = 3/18/83
       Slack time = 30 Weeks
    Prerequisites = Job #17, ANALYSIS OF ITPP
                   Job #49, ASARC/DSARC 2
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job $68, DEVELOP SUBCOUSES FOR ACCP
----------
                                       Earliest start = 8/6/82
         Duration = 2 Weeks

    Work Completed = 0 Weeks

                                      Earliest finish = 8/20/82
 On critical path = No
                                         Latest start = 3/25/83
       Slack time = 33 Weeks
                                        Latest finish = 4/8/83
    Prerequisites = Job #45, ROC
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #69, CONDUCT OT 2
        Duration = 6 Weeks
                                       Earliest start = 1/21/83
   Work Completed = 0 Weeks
                                       Earliest finish = 3/ 4/83
  On critical path = No
                                         Latest start = 3/11/83
       Slack time = 7 Weeks
                                         Latest finish = 4/22/83
    Prerequisites = Job #47, TDR/LR DEVELOPMENT
                    Job #49, ASARC/DSARC 2
                    Job #58, INITIATE TEC DEVELOPMENT
                    Job #59, DEVELOP UNIT TRNG STRATEGY
                    Job #60, SUBMT SPPT (FAC.) REQ TO MACOM
                    Job #62, DEVELOP/VALIDATE DEP (SPAS)
                    Job #63, PREPARE DRAFT CT (ARTEP) PACK.
                    Job #64, IDEN TRNG ISSUES FOR OT 2/CTEA
                    Job #65, NET START/NETT
   Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #70, VALIDATE/TEST AMMO AT OT 2
-----
         Duration = 2 Weeks
                                        Earliest start = 1/21/83
   Work Completed = 0 Weeks
                                       Earliest finish = 2/4/83
  On critical path = No
                                         Latest start = 4/8/83
       Slack time = 11 Weeks
                                         Latest finish = 4/22/83
     Prerequisites = Job 047, TDR/LR DEVELOPMENT
                    Job #49, ASARC/DSARC 2
                    Job $58, INITIATE TEC DEVELOPMENT
                    Job #59, DEVELOP UNIT TRNG STRATEGY
                    Job #60, SUBMT SPPT (FAC.) REQ TO MACOM
                    Job #62, DEVELOP/VALIDATE DEP (SPAS)
                    Job #63, PREPARE DRAFT CT (ARTEP) PACK
                    Job #64, IDEN TRNG ISSUES FOR OT 2/CTEA
                    Job #65, NET START/NETT
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job 471, VALIDATE TEC LESSONS AT OT 2 2-34
-----
         Duration = 2 Weeks
                                        Earliest start = 1/21/83
    Work Completed = 0 Weeks
                                        Earliest finish = 2/4/83
```

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On critical path = No
                                            Latest start = 4/ 8/63
                                           Latest finish = 4/22/83
       Slack time = 11 Weeks
    Prerequisites = Job #47, TDR/LR DEVELOPMENT
                    Job #49, ASARC/DSARC 2
                    Job #58. INITIATE TEC DEVELOPMENT
                    Job #59, DEVELOP UNIT TRNG STRATEGY
                    Job 060, SUBMT SPPT (FAC.) REQ TO MACOM
                    Job #42, DEVELOP/VALIDATE DEP (SPAS)
                    Job 964, IDEN TRNG ISSUES FOR OT 2/CTEA
                    Job 065, NET START/NETT
                    Job #48, DEVELOP SUBCOUSES FOR ACCP
  Manpower skills = none
     Total effort = none
    Mannower cost = $0.0
      Direct cost = $0
Job #72, VALIDATE CT PACK. (ARTEP)/OT 2
         Duration = 2 Veeks
                                          Earliest start = 1/21/83
                                         Earliest finish = 2/ 4/83
   Work Completed = 0 Weeks
                                            Latest start = 4/8/83
 On critical path = No
       Slack time = 11 Veeks
                                           Latest finish = 4/22/83
     Prerequisites = Job #47, TDR/LR DEVELOPMENT
                     Job 049, ASARC/DSARC 2
                     Job 058, INITIATE TEC DEVELOPMENT
                     Job 459, DEVELOP UNIT TRNG STRATEGY
                     Job #40, SUBMT SPPT (FAC.) REQ TO MACON
                     Job #42, DEVELOP/VALIDATE DEP (SPAS)
                     Job 443, PREPARE DRAFT CT (ARTEP) PACK.
                     Job #64, IDEN TRNG ISSUES FOR OT 2/CTEA
                     Job #45, NET START/NETT
  Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
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Job 073, VALIDATE TD EFFECTIVENESS/OT 2

```
Duration = 2 Veeks Earliest start = 1/21/83
Vork Completed = 0 Veeks Earliest finish = 2/4/83
On critical path = No Latest start = 4/8/83
Slack time = 11 Veeks Latest finish = 4/22/83
Prerequisites = Job 047, TDR/LR DEVELOPMENT
Job 049, ASARC/DSARC 2
Jeb 058, INITIATE TEC DEVELOPMENT
Job 059, DEVELOP UNIT TRNG STRATEGY
```

```
Job 460, SUBMT SPPT (FAC.) REQ TO MACOM
                    Job #62, DEVELOP/VALIDATE DEP (SPAS)
                    Job #63, PREPARE DRAFT CT (ARTEP) PACK.
                    Job #64, IDEN TRNG ISSUES FOR OT 2/CTEA
                    Job #65, NET START/NETT
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #74, VALIDATE ATLP CHANGES AT OT 2
         Duration = 2 Veeks
                                         Earliest start = 1/21/83
   Work Completed = 0 Weeks
                                        Earliest finish = 2/4/83
 On critical path = No
                                           Latest start = 4/8/83
                                           Latest finish = 4/22/83
        Slack time = 11 Weeks
     Prerequisites = Job #47, TDR/LR DEVELOPMENT
                    Job #49, ASARC/DSARC 2
                    Job 058, INITIATE TEC DEVELOPMENT
                    Job 059, DEVELOP UNIT TRNG STRATEGY
                    Job #60, SUBMT SPPT (FAC.) REQ TO MACON
                    Job #62, DEVELOP/VALIDATE DEP (SPAS)
                    Job #63, PREPARE DRAFT CT (ARTEP) PACK
                    Job 064, IDEN TRNG ISSUES FOR OT 2/CTEA
                     Job #65, NET START/NETT
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
       Direct cost = $0
Job #75, REFINE CONSTRUCTION REQ AT OT2
                                          Earliest start = 10/ 1/82
          Duration = 2 Weeks
                                        Earliest finish = 10/15/82
    Work Completed = 0 Weeks
  On critical path = No
                                           Latest start = 4/8/83
        Slack time = 27 Weeks
                                           Latest finish = 4/22/83
     Prerequisites = Job #47, TDR/LR DEVELOPMENT
                     Job 049, ASARC/DSARC 2
                     Job 058, INITIATE TEC DEVELOPMENT
                     Job 659, DEVELOP UNIT TRNG STRATEGY
                     Job 860, SUBMT SPPT (FAC ) REG TO MACOM
                     Job #62, DEVELOP/VALIDATE DEP (SPAS)
                     Job 663, PREPARE DRAFT CT (ARTEP) PACK
                     Job #64, IDEN TRNG ISSUES FOR OT 2/CTEA
                     Job #66, DAMPP DISTRIBUTION COMPLETE
   Manpower skills = none
      Total effort = none
     Manpower cost = $0.0
       Direct cost = $0
Job #76, UPDATE CTEA (FSD)
                                         Earliest start = 3/4/83
          Duration = 2 Weeks
                                        Earliest finish = 3/18/83
    Work Completed = 0 Weeks
                                           Latest start = 4/22/83
  On critical path = No
                                           Latest finish = 5/ 6/83
       Slack time = 7 Weeks
     Prerequisites = Job #64, IDEN TRNG ISSUES FOR OT 2/CTEA
                     Job #69, CONDUCT OT 2
                     Job #125, BETWEEN OT 2 (69) & CTEA (76)
   Manpower skills = none
      Total effort = none
     Manpower cost = $0.0
       Direct cost = $0
                                     2-50
Job #77, DETERMINE ETM/SPA DELIVERABLES
```

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Earliest start - 3/ 4/83
         Duration # 1 Week
   Work Completed = 0 Weeks
                                      Earliest finish = 3/11/83
 On critical path = No Latest start = 5/6/83

Slack time = 9 Weeks Latest finish = 5/13/83
    Prerequisites - Job 062, DEVELOP/VALIDATE DEP (SPAS)
                   Job 067, CONDUCT OT 2
  Manpower skills = none
    Total effort = none
    Manpower cost = 10.0
      Direct cost = 10
Job 478, MOS MILESTONES FOR TO IN ITPP
  Duration = 1 Week
Work Completed = 0 Weeks

''asl path = No
------
                                         Earliest start = 3/ 4/83
                                       Sarliest finish = 3/11/83
                                         Latest start = 6/24/83
 On critical path = No
                                         Latest finish = 7/ 1/83
   Prerequisites = Job 073, VALIDATE TO EFFECTIVENESS/OT 2
                   Job #49, CONDUCT OT 2
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #79, INITIATE FACILITIES CONSTR
      Duration = 1 Week
                                        Earliest start = 10/15/82
                               Earliest finish = 10/22/82
   Work Completed = 0 Weeks
                                          Latest start = 7/15/83
  On critical path = No
                                         Latest finish = 7/22/83
      Slack time = 39 Weeks
    Prerequisites = Job 075, REFINE CONSTRUCTION REG AT 0T2
   Manpower skills = none
    Total effort = none
     Manpower cost = 10.0
      Direct cost = 90
Job #80, ASARC/DSARC 3
------
   Duration = 1 Week
Work Completed = 0 Weeks
                                      Earliest finish = 3/25/83
                                        Earliest start = 3/18/83
                                          Latest start = 5/6/83
  On critical path = No
                                          Latest finish = 5/13/83
      Slack time = 7 Weeks
    Prerequisites = Job #69, CONDUCT OT 2
                   Job 076, UPDATE CTEA (FSD)
   Manpower skills - none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #81, SUBMIT AMMO REQ FOR REDNT TRNG
 .............
      Duration = 1 Week

ork Completed = 0 Weeks

critical path = No

Stack time = 16 Weeks
                                        Earliest start = 3/4/83

Sarliest finish = 3/11/83

Latest start = 6/24/83
    Work Completed = 0 Weeks
  On critical path = No
                                          Latest finish = 7/ 1/83
     Prerequisites = Job #70, VALIDATE/TEST AMMO AT OT 2
                    Job #69, CONDUCT OT 2
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #82, SOW INPUT FOR NET REQUIREMENT
 ------
        Duration = 1 Week
                                         Earliest start = 3/25/83
                                      Earliest finish = 4/ 1/83
    Work Completed = 0 Veeks
```

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Latest start = 5/13/83
 On critical path = No
                                        Latest finish = 5/20/83
     Slack time = 7 Weeks
   Prerequisites = Job 080, ASARC/DSARC 3
                   Job #77, DETERMINE ETM/SPA DELIVERABLES
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #83, FINALIZE CTEA (P/D)
                                     Earliest finish = 4/ 8/83
                                       Earliest start = 3/25/83
     Duration = 2 Weeks
   Work Completed = 0 Weeks
                                         Latest start = 7/ 1/83
  On critical path = No
                                         Latest finish = 7/15/83
      Slack time = 14 Weeks
    Prerequisites = Job #76, UPDATE CTEA (FSD)
                   Job #80, ASARC/DSARC 3
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #84, CONDUCT OT 3
   Duration = 6 Weeks · Work Completed = 0 Weeks
                                       Earliest start = 4/ 1/83
                                      Earliest finish = 5/13/83
                                         Latest start = 5/20/83
  On critical path = No
                                         Latest finish = 7/ 1/83
      Slack time = 7 Weeks
     Prerequisites = Job #80, ASARC/DSARC 3
                   Job #82, SOW INPUT FOR NET REQUIREMENT
   Manpower skills = none
     Total effort * none
    Manpower cost = $0.0
     Direct cost = $0
Job #85, ATL FOR ITP
-----
   Duration = 1 Week
Work Completed = 0 Weeks
                                        Earliest start = 3/11/83
                                       Earliest finish = 3/18/83
                                          Latest start = 7/ 1/83
  On critical path = No
       Slack time = 16 Weeks
                                          Latest finish = 7/8/83
     Prerequisites = Job #67, CAD FOR ITP
                    Job #81, SUBMIT AMMO REQ FOR RSDNT TRNG
                    Job #86, MILESTONES FOR ALCP IN ITPP
   Manpower skills = none
      Total effort = none
     Manpower cost = $0.0
       Direct cost = $0
Job #86, MILESTONES FOR ACCP IN ITPP
----
   Duration = 1 west
Work Completed = 0 Weeks
' -= h = No
                                        Earliest start = 3/4/83
                                       Earliest finish = 3/11/83
  On critical path = No
                                          Latest start =
      Slack time = 13 Weeks
                                          Latest finish = 6/10/83
    Prerequisites = Job #68, DEVELOP SUBCOUSES FOR ACCP
                    Job #69, CONDUCT OT 2
   Manpower skills = none
                                           2-38
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Total effort = none

```
Manpower cost = 10.0
      Direct cost = $0
Job #87, UPDATED ITPP
------
                                        Earliest start = 3/11/83
Earliest finish = 3/18/83
Latest start = 7/ 1/83
         Duration = 1 Week
   Work Completed = 0 Weeks
 On critical path = No
                                           Latest finish = 7/8/83
      Slack time = 16 Veeks
     Prerequisites - Job #47, CAD FOR ITP
                    Job 078, MOS HILESTONES FOR TO IN ITPP
                     Jeb 081, SUBMIT AMMO REQ FOR REDNT TRNG
                     Job 486, MILESTONES FOR ACCP IN ITPP
  Manpower skills = none
     Total effort - none
     Manpower cost = $0.0
      Direct cost = 60
Job #88, FINALIZE DEP (SPAS)
                                          Earliest start = 4/ 1/83
        Duration = 1 Week
   Work Completed = 0 Weeks
                                        Earliest finish = 4/8/83
  On critical path = No
       Slack time = 10 Weeks
                                           Latest start = 6/10/83
                                           Latest finish = 6/17/83
     Prerequisites = Job 982, SOW INPUT FOR NET REQUIREMENT
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #89, TRNG PRGM WRKSHT (TPW) FOR ITP
                                         Earliest start = 3/25/83
Earliest finish = 4/ 1/83
Latest start = 7/ 8/83
    Duration = 1 Week
   Work Completed = 0 Weeks
  On critical path = No
                                           Latest finish = 7/15/83
      Slack time = 15 Veeks
     Prerequisites = Job 067, UPDATED ITPP
                     Job 080, ASARC/DSARC 3
                    Job #85, ATL FOR ITP
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = 10
Job 990, ASARC/DSARC 3A
        Duration = 1 Week
                                       Earliest Simish = 5/20/83
                                          Earliest start = 5/13/83
    Work Completed = 0 Weeks
  On critical path = No
                                            Latest start = 7/15/83
       Slack time = 7 Weeks
                                           Latest finish = 7/22/83
     Prerequisites = Job #83, FINALIZE CTEA (P/D)
                   Job #84, CONDUCT OT 3
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
       Direct cost = 10
Job #91, TRGT AUD VERIFIC FOR SPA TMS
    Duration = 1 Week

Work Completed = 0 Weeks

n critical path = No
                                          Earliest start = 4/8/83
                                        Earliest finish = 4/15/83
  On critical path = No
                                           Latest start = 8/5/83
       Slack time = 17 Weeks
                                            Latest finish = 8/12/83
     Prerequisites = Job #88, FINALIZE DEP (SPAS)
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Job #80, ASARC/DSARC 3

Manpower skills = none

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Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #92, SUBMIT POI (FOR ITP)
-----
                                      Earliest start = 4/ 1/83
       Duration = 1 Week
  Work Completed = 0 Weeks
                                     Earliest finish = 4/8/83
 On critical path = No
                                        Latest start = 7/15/83
      Slack time = 15 Veeks
                                       Latest finish = 7/22/83
    Prerequisites = Job #89, TRNG PRGM WRKSHT (TPW) FOR ITP
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #93, PRODUCE TEC
-----
   Duration = 3 Weeks
Work Completed = 0 Weeks
                                       Earliest start = 5/13/83
                                      Earliest finish = 6/3/83
                                        Latest start = 7/ 1/83
  On critical path = No
                                        Latest finish = 7/22/83
      Slack time = 7 Weeks
    Prerequisites = Job #71, VALIDATE TEC LESSONS AT OT 2
                  Job #84, CONDUCT OT 3
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = 10
Job #94, TRADOC APPROVAL OF FM OUTLINES
-----
      Duration = 1 Week
                                       Earliest start = 2/4/83
 Work Completed = 0 Weeks
On critical path = No
Slack time = 12 Weeks
                                     Earliest finish = 2/11/83
                                        Latest start = 4/29/83
       Slack time = 12 Veeks
                                        Latest finish = 5/6/83
    Prerequisites = Job #74, VALIDATE ATLP CHANGES AT OT 2
   Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job 495, SUBMIT ACCP SUBCRSES TO ATSC
     Duration = 1 Week
   Duration = . ...
Work Completed = 0 Weeks
                                       Earliest start = 3/11/83
                                       Earliest finish = 3/18/83
       Slack time = 13 Weeks

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  On critical path = No
     Prerequisites = Job #86, MILESTONES FOR ACCP IN ITPP
   Manpower skills = none
     Total effort = none
    Manpower cost = 10.0
      Direct cost = $0
Job #96, DRAFT SM/TG/JB TO ATSC
-----
                                       Earliest start = 3/25/83
         Duration = 1 Week
   Work Completed = 0 Weeks
                                      Earliest finish = 4/ 1/83
                                        Latest start = 6/24/83
  On critical path = No
                                       Latest finish = 7/ 1/83
      Slack time = 13 Weeks
     Prerequisites = Job #21, REVIEW FEA FOR SM, TG, & JB
                   Job #80, ASARC/DSARC 3
   Manpower skills = none
     Total effort = none
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Manpower cost = \$0.0 Direct cost = \$0

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Job 497, START RESIDENT TRAINING (SRT)
                                          ***** CRITICAL *****
Duration = 3 Weeks
                                        Earliest start = 7/22/83
    Work Completed = 0 Weeks
                                       Earliest finish = 8/12/83
  On critical path = Yes
                                          Latest start = 7/22/83
        Slack time = none
                                          Latest finish = 8/12/83
     Prerequisites = Job #90, ASARC/DSARC 3A
                    Job #92, SUBMIT POI (FOR ITP)
                    Job 979, INITIATE FACILITIES CONSTR
                    Job #93, PRODUCE TEC
                    Job #126, 60 MONTHS BETVEEN #27 AND #97
                    Job #129, 42 MONTHS BETWEEN #60 AND #97
                    Job #130, 30 MONTHS BETWEEN #11 AND #97
                    Job #131, 18 MONTHS BETVEEN #67 AND #97
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = 10
Job $98, DISTRIBUTE TEC
*************
        Duration = 1 Week
  Work Completed = 0 Weeks
                                        Earliest start = 6/ 3/83
                                     Earliest start = 6/3/83
Earliest finish = 6/10/83
 On critical path = No
                                         Latest start = 8/12/83
      Slack time = 10 Weeks
                                         Latest finish = 8/19/83
     Prerequisites = Job #93, PRODUCE TEC
                    Job #90, ASARC/DSARC 3A
                    Job $92, SUBMIT POI (FOR ITP)
                   Job #79, INITIATE FACILITIES CONSTR
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job $99, ATSC APPROVAL OF ACCP SUBCRSES
     Duration = 1 Week Earliest start = 4/15/83

Latest start = 6/17/83
Work Completed = 0 Weeks
n critical path = No
  On critical path = No
      Slack time = 10 Weeks
                                         Latest finish = 6/24/83
    Prerequisites = Job 008, FINALIZE DEP (SPAS)
                   Job 475, SUBMIT ACCP SUBCRSES TO ATSC
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #100, COORDINATING DRAFT OF FMS
------
  Duration = 6 Weeks
Work Completed = 0 Weeks
                                      Earliest start = 2/11/83
Earliest finish = 3/25/83
 On critical path = No
                                        Latest start = 6/17/83
Latest finish = 7/29/83
      Slack time = 18 Weeks
    Prerequisites = Job #94, TRADOC APPROVAL OF FM OUTLINES
  Manpower skills = none
    Total effort = none
                                    2-41
   Manpower cost = $0.0
```

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Job \$101, SUBMIT ACCP NEED TO ATSC ______ Earliest start = 4/15/83 Duration = 1 Week Work Completed = 0 Weeks n critical path = No Slack time = 10 Weeks Earliest finish = 4/22/83 Latest start = 6/24/83 On critical path = No Latest finish = 7/1/83 Prerequisites = Job #99, ATSC APPROVAL OF ACCP SUBCRSES Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #102, VALIDATE ETM/NET/SPAS ------Earliest start = 4/15/83 Duration = 1 Week Earliest finish = 4/22/83 Work Completed = 0 Weeks Latest start = 8/12/83 On critical path = No Latest finish = 8/19/83 Slack time = 17 Weeks Prerequisites = Job #91, TRGT AUD VERIFIC FOR SPA TMS Job #80, ASARC/DSARC 3 Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #103, CERT/MAST PRGRM FOR UNIT TRNG -----Earliest start = 5/20/83 Duration = 2 Weeks Earliest finish = 6/ 3/83 Work Completed = 0 Weeks On critical path = No Prerequisites = Job #59, DEVELOP UNIT TRNG STRATEGY Job #90, ASARC/DSARC 3A Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #104, COMPREHENSIVE DRAFT OF FMS Duration = 1 Week Earliest start = 3/25/83Work Completed = 0 Weeks Earliest finish = 4/ 1/83 Latest start = 7/29/83 On critical path = No ritical path = No Latest start = 7/29/83 Slack time = 18 Weeks Latest finish = 8/ 5/83 Prerequisites = Job #100, COORDINATING DRAFT OF FMS Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #105, ATSC COMMENTS ON SM/TG/JB -----Earliest start = 4/ 1/83 Duration = 4 Weeks Work Completed = 0 Weeks Earliest finish = 4/29/83 On critical path = No Slack time = 13 Weeks Latest start = 7/ 1/83 Latest finish = 7/29/83 Prerequisites = Job #96, DRAFT SM/TG/JB TO ATSC Manpower skills = none Total effort = none

Manpower cost = \$0.0

Direct cost = \$0

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Job #106, CRM OF ACCP TO ATSC

Earliest start = 4/22/83 Duration - 3 Weeks Earliest finish = 5/13/83 Work Completed = 0 Weeks Latest start = 7/ 1/83 On critical path = No Latest finish = 7/22/83 Slack time = 10 Veeks Prerequisites = Job #101, SUBMIT ACCP NEED TO ATSC Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = 10 Job 0107, ACCP READY FOR DISTRIBUTION ******************************** Earliest start = 5/13/83 Duration = 4 Veeks Work Completed = 0 Veeks Earliest finish = 6/10/83 Latest start = 7/22/83 On critical path = No Slack time = 10 Weeks Latest finish = \$/19/83 Prerequisites = Job \$106, CRM OF ACCP TO ATSC Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job \$108, INITIATE/PRINT FMS -----Earliest start = 4/ 1/83 Duration = 2 Weeks Work Completed = 0 Weeks Earliest finish = 4/15/83 Latest start = 8/5/83 On critical path = No Slack time = 18 Weeks Latest finish = 8/19/83 Prerequisites = Job #104, COMPREHENSIVE DRAFT OF FMS Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #109, CRM FOR SM/TG/JE TO ATSC -----Earliest start = 4/29/83 Duration = 3 Weeks Earliest finish = 5/20/83 Work Completed = 0 Weeks Slack time = 13 Weeks On critical path = No Latest start = 7/29/83Latest finish = 8/19/83 Prerequisites = Job \$105, ATSC COMMENTS ON SM/TG/JB Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 **** CRITICAL **** Job \$110, DISTRIBUTE ARTEP & CT PACKAGE -----Earliest start = 8/12/83 Duration = 1 Week Earliest finish = 8/19/83 Work Completed = 0 Weeks Latest start = 8/12/83 On critical path = Yes Latest finish = 8/19/83 Slack time = none Prerequisites = Job #72, VALIDATE CT PACK. (ARTEP)/OT 2 Job 497, START RESIDENT TRAINING (SRT)

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Manpower skills = none
Total effort = none
Manpower cost = \$0.0
Direct cost = \$0

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Job #111, FIRST UNIT EQUIPPED (FUE)
                                         **** CRITICAL ****
_____
        Duration = 1 Week
                                        Earliest start = 8/19/83
                                       Earliest finish = 8/26/83
   Work Completed = 0 Weeks
                                         Latest start = 8/19/83
  On critical path = Yes
                                         Latest finish = 8/26/83
       Slack time = none
    Prerequisites = Job #107, ACCP READY FOR DISTRIBUTION
                    Job #109, CRM FOR SM/TG/JB TO ATSC
                    Job #110, DISTRIBUTE ARTEP & CT PACKAGE
                    Job #103, CERT/MAST PRGRM FOR UNIT TRNG
                    Job #97, START RESIDENT TRAINING (SRT)
                    Job #102, VALIDATE ETM/NET/SPAS
                    Job #108, INITIATE/PRINT FMS
                    Job #98, DISTRIBUTE TEC
                    Job #132, 15 MONTHS BETWEEN #94 AND #111
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #112, DELIVER TMS (SPAS)
_____
                                        Earliest start = 8/19/83
         Duration = 1 Week
                                       Earliest finish = 8/26/83
    Work Completed = 0 Weeks
  On critical path = No
                                          Latest start = 10/ 7/83
       Slack time = 7 Weeks
                                         Latest finish = 10/14/83
     Prerequisites = Job #97, START RESIDENT TRAINING (SRT)
                    Job #102, VALIDATE ETM/NET/SPAS
                    Job #103, CERT/MAST PRGRM FOR UNIT TRNG
                    Job #107, ACCP READY FOR DISTRIBUTION
                    Job #108, INITIATE/PRINT FMS
                    Job #109, CRM FOR SM/TG/JB TO ATSC
                    Job #110, DISTRIBUTE ARTEP & CT PACKAGE
   Manpower skills = none
      Total effort = none
     Manpower cost = $0.0
       Direct cost = $0
Job #113, DISTRIBUTE FMS
         Duration = 6 Weeks
                                        Earliest start = 8/19/83
    Work Completed = 0 Weeks
                                       Earliest finish = 9/30/83
  On critical path = No
                                          Latest start = 9/9/83
        Slack time = 3 Weeks
                                          Latest finish = 10/21/83
     Prerequisites = Job #107, ACCP READY FOR DISTRIBUTION
                    Job #102, VALIDATE ETM/NET/SPAS
                    Job #103, CERT/MAST PRGRM FOR UNIT TRNG
                    Job #97, START RESIDENT TRAINING ( $T)
                    Job #110, DISTRIBUTE ARTEP & CT PACKAGE
                    Job #198, INITIATE/PRINT FMS
                    Job #109, CRM FOR GM/TG/JB TO ATSC
   Manpower skills = none
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Total effort = none
    Manpower cost = $0.0
     Direct cost = 10
Job #114, COMPLETE DIST. OF SM/TG/JB
                                       Earliest start = 8/19/83
        Duration = 6 Veeks
                                      Earliest finish = 9/30/83
   Work Completed = 0 Weeks
                                        Latest start = 9/ 9/83
 On critical path = No
                                        Latest finish = 10/21/83
      Slack time = 3 Veeks
    Prerequisites = Job #107, ACCP READY FOR DISTRIBUTION
                    Job #102, VALIDATE ETM/NET/SPAS
                    Job #97, START RESIDENT TRAINING (SRT)
                    Job 0108, INITIATE/FRINT FMS
                    Job #109, CRM FOR SM/TG/JB TO ATSC
                    Job #110, DISTRIBUTE ARTEP & CT PACKAGE
                    Job #103, CERT/MAST PRGRM FOR UNIT TRNG
   Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
                                         **** CRITICAL ****
Job #115, SQT TROOP VALIDATION
                                       Earliest start = 8/26/83
      Duration = 3 Weeks
                                        Earliest finish = 9/16/83
   Work Completed = 0 Weeks
                                         Latest start = 8/26/83
  On critical path = Yes
      Slack time = none
                                         Latest finish = 9/16/83
    Prerequisites = Job #111, FIRST UNIT EQUIPPED (FUE)
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
     Direct cost = $0
Job #116, SQT CRM TO ATSC
                                          **** CRITICAL ****
                                        Earliest start = 9/16/83
        Duration = 1 Week
    Work Completed = 0 Weeks
                                      Earliest finish = 9/23/83
                                         Latest start = 9/16/83
  On critical path = Yes
                                         Latest finish = 9/23/83
       Slack time = none
     Prerequisites = Job #115, SQT TROOP VALIDATION
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
       Direct cost = $0
 Job #117, SQT TEMPLATE TO ATSC
                                          ***** CRITATAL ****
        Duration = 1 Week
                                        Earliest start = 9/23/83
    Work Completed = 0 Weeks
                                       Earliest finish = 9/30/83
  On critical path - Yes
                                          Latest start = 9/23/83
       Slack time = none
                                         Latest finish = 9/30/83
     Prerequisites - Job #116, SQT CRM TO ATSC
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
       Direct cost = $0
                                          **** CRITICAL ****
 Job #118, SQT DISTRIBUTION COMPLETE
          Duration = 3 Weeks
                                        Earliest start = 9/30/83
    Work Completed = 0 Weeks
                                       Earliest finish = 10/21/83
   On critical path = Yes
                                          Latest start = 9/30/83
                                    Latest finish = 10/21/83
```

Slack time = none

Manpower skills = none

Prerequisites = Job #117, SQT TEMPLATE TO ATSC

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Manpower cost = \$0.0 Direct cost = \$0 **** CRITICAL **** Job #119, EVALUATE ARTEP & CT PACKAGE ______ Duration = 12 Weeks Earliest start = 8/26/83 Work Completed = 0 Weeks Earliest finish = 11/18/83 Latest start = 8/26/83On critical path = Yes Latest finish = 11/18/83 Slack time = none Prerequisites = Job #110, DISTRIBUTE ARTEP & CT PACKAGE Job #111, FIRST UNIT EQUIPPED (FUE) Manpower skills = none Total effort = none Manbower cost = \$0.0 Direct cost = \$0 **** CRITICAL **** Job #120, PREPARE COORD, DRAFT ARTEP ------Earliest start = 11/18/83 Duration = 6 Weeks Work Completed = 0 Weeks Earliest finish = 12/30/83 Latest start = 11/18/83 On critical path = Yes Slack time = none Latest finish = 12/30/83 Prerequisites = Job #119, EVALUATE ARTEP & CT PACKAGE Job #111, FIRST UNIT EQUIPPED (FUE) Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #121, PROVIDE NET/ETM/SPAS TO UNITS ______ Earliest start = 8/26/83 Duration = 1 Week Earliest finish = 9/ 2/83 Work Completed = 0 Weeks On critical path = No Latest start = 10/14/83 Slack time = 7 Weeks Latest finish = 10/21/83Prerequisites = Job #112, DELIVER TMS (SPAS) Job #111, FIRST UNIT EQUIPPED (FUE) Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #122, INITIAL OPERATNG CAPBLTY (IOC) ***** CRITICAL ***** ------Duration = 0 Weeks Earliest start = 10/21/83 Earliest finish = 10/21/83Work Completed = 0 Weeks On critical path = Yes Latest start = 10/21/83Latest finish = 10/21/83 Slack time = none Prerequisites = Job #111, FIRST UNIT EQUIPPED (FUE) Job #121, PROVIDE NET/ETM/SPAS TO UNITS Job #113, DISTRIBUTE FMS Job #114, COMPLETE DIST. OF SM/TG/JB Job #118, SQT DISTRIBUTION COMPLETE

Total effort = none

Manpower skills = none
Total effort = none
Manpower cost = \$0 0
Direct cost = \$0

```
Job #123, BETWEEN FEA (15) & OT 1 (24)
-----
                                      Earliest start = 5/28/82
        Duration = 0 Weeks
                                     Earliest finish = 5/28/82
   Work Completed = 0 Weeks
                                        Latest start = 7/16/82
 On critical path = No
                                        Latest finish = 7/16/82
       Slack time = 7 Weeks
    Prerequisites = Job #17, ANALYSIS OF ITPP
                   Job #21, REVIEW FEA FOR SM, TG, & JB
                   Job #22, REVIEW FEA FOR SQT
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #124, BETWEEN OT 1 (29) & M&CTA (41)
------
                                       Earliest start = 6/18/82
         Duration = 0 Weeks
                                     Earliest finish = 6/18/82
   Work Completed = 0 Weeks
                                        Latest start = 8/27/82
  On critical path = No
       Slack time = 10 Weeks
                                       Latest finish = 8/27/82
    Prerequisites = Job #30, VALIDATE AMMO REQ AT OT 1
                   Job #31, VALIDATE PDEP (SPAS) AT OT 1
                   Job #32, VALIDATE TEC REQ AT OT 1
                   Job #33, EVALUATE CT PACKAGE AT OT 1
                   Job #34, VALIDATE TD CONCEPT AT OT 1
                   Job #35, VALIDATE ATLP CHANGES AT OT 1
                   Job #36, VALIDATE DAAPP REQ AT OT 1
                   Job #37, VALIDATE CONSTR REG AT OT 1
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = 50
Job #125, BETWEEN OT 2 (69) & CTEA (76)
-------
                                       Earliest start = 3/4/83
        Duration = 0 Weeks
                                      Earliest finish = 3/4/83
    Work Completed = 0 Weeks
                                         Latest start = 4/22/83
  On critical path = No
        Slack time = 7 Weeks
                                        Latest finish = 4/22/83
     Prerequisites = Job #69, CONDUCT OT 2
                   Job #70, VALIDATE/TEST AMMO AT OT 2
                    Job #71, VALIDATE TEC LESSONS AT OT 2
                    Job #72, VALIDATE CT PACK. (ARTEP)/OT 2
                    Job #73, VALIDATE TD EFFECTIVENESS/OT 2
                    Job #74, VALIDATE ATLP CHANGES AT OT 2
                    Job #75, REFINE CONSTRUCTION REQ AT OT2
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #126, 60 MONTHS BETWEEN #27 AND #97
                                         **** CRITICAL ****
         Duration = 60 Weeks
                                       Earliest start = 5/28/82
   Work Completed = 0 Weeks
                                       Earliest finish = 7/22/83
  On critical path = Yes
                                        Latest start = 5/28/82
       Slack time = none
                                        Latest finish = 7/22/83
     Prerequisites = Job #27, SUBMIT CONSTRCTN REQ TO MACOM
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = 50
Job #127, 23 MONTHS BETWEEN #39 AND #65
```

Duration = 23 Weeks Earliest start = 7/16/82

```
Work Completed = 0 Weeks
                                      Earliest finish = 12/24/82
                                      Latest start = 9/10/82
 On critical path = No
      Slack time = 8 Weeks
                                        Latest f'nish = 2/18/83
    Prerequisites = Job #39, SUBMIT TEC REG TO ATSC
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #128, 20 MONTHS BETWEEN #54 AND #65
                                       Earliest start = 8/13/82
       Duration = 20 Weeks
   Work Completed = 0 Weeks
                                     Earliest finish = 12/31/82
  On critical path = No
      ritical path = No Latest start = 10/ 1/82
Slack time = 7 Weeks Latest finish = 2/18/83
     Prerequisites = Job #54, PREPARE TEC DEVELOP. CONTRACT
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #129, 42 MONTHS BETWEEN #60 AND #97
-----
         Duration = 42 Weeks
                                       Earliest start = 6/25/82
   Work Completed = 0 Weeks Earliest finish = 4/15/83 n critical path = No Latest start = 10/ 1/82 Slack time = 14 Weeks Latest finish = 7/22/83
  On critical path = No
    Prerequisites = Job 060, SUBMT SPPT (FAC.) REQ TO MACOM
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #130, 30 MONTHS BETWEEN #11 AND #97
-----
       Duration = 30 Weeks
                                       Earliest start = 1/8/82
  Work Completed = 0 Weeks
On critical path = No
                                      Earliest finish = 8/6/82
                                        Latest start = 12/24/82
       Slack time = 50 Weeks
                                         Latest finish = 7/22/83
    Prerequisites = Job #11, INDVDL TRNG PLN PRPOSAL (ITPP)
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #131, 18 MONTHS BETWEEN #67 AND #97
                                        Earliest start = 8/20/82
         Duration = 18 Weeks
   Work Completed = 0 Weeks
                                      Earliest finish = 12/24/82
  On critical path = No
                                         Latest start = 3/18/83
      Slack time = 30 Veeks
                                         Latest finish = 7/22/83
    Prerequisites = Job #67, CAD FOR ITP
  Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #132, 15 MONTHS BETWEEN #94 AND #111
   On critical path = No
   Prerequisites = Job #94, TRADOC APPROVAL OF FM OUTLINES
 Manpower skills = none
                                 2-48
     Total effort = none
```

7

•

Manpower cost = \$0.0 Direct cost = \$0

Sorting order is Current order From the first job to the last job Jobs using all skills

2.2 REVIEW TEMPORAL RELATIONSHIPS

In this step, the temporal relationships among events must be reviewed. As used here, temporal relationships refer solely to the ordinal properties of relationships among events. An ordinal relationship simply indicates which event occurs first without specifying actual time intervals between events.

All temporal information concerning the ICTP events, which was specified in TRADOC Regulation 351-9, is located in the Comments column of Table 2-1. This information has been entered into the APST input data diskette and can be examined in the Job Description Report located in Table 2-2. This table contains temporal information in the form of a list of prerequisite events to each event comprising the ICTP. In order to make this information easier to review, a network diagram was developed (see Figure 2-2).

The temporal relationships which can exist between events include:

- prerequisite/ Prerequisite/predecessor a predecessor is an event which must be completed before another event can begin. Those events depicted in Figure 2-2 which are predecessors to other events are either: (1) located on the same horizontal line directly to the left of the target event (e.g., #7 precedes #9), (2) located on a different horizontal line with a line directly connecting it to an event to the right of it (e.g., $\#\bar{6}$ precedes #15), or (3) preceding (as defined in 1 and 2) an event which is concurrent with another event (e.g., #18 precedes both #32 and #31).
- Successor a successor is an event which cannot begin until another event is completed. Successor relationships are the converse of prerequisite/predecessor relationships.
- Concurrent starting events events which begin concurrently must have the same prerequisites/ predecessors. Events which are displayed on the same vertical line in Figure 2-2 may have beginning concurrence, (e.g., #29 is concurrent with #33).
- Concurrent ending events two jobs which end at the same time (they must, therefore, have the same successors). Events which are displayed on the

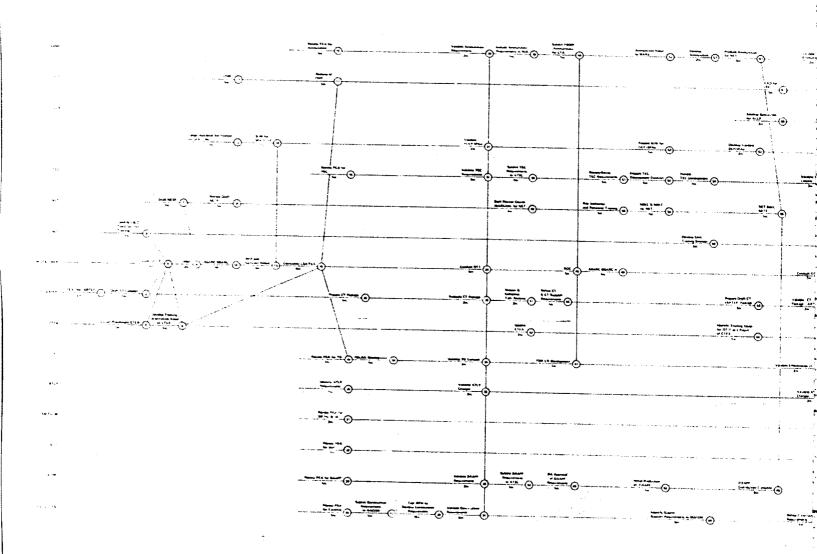
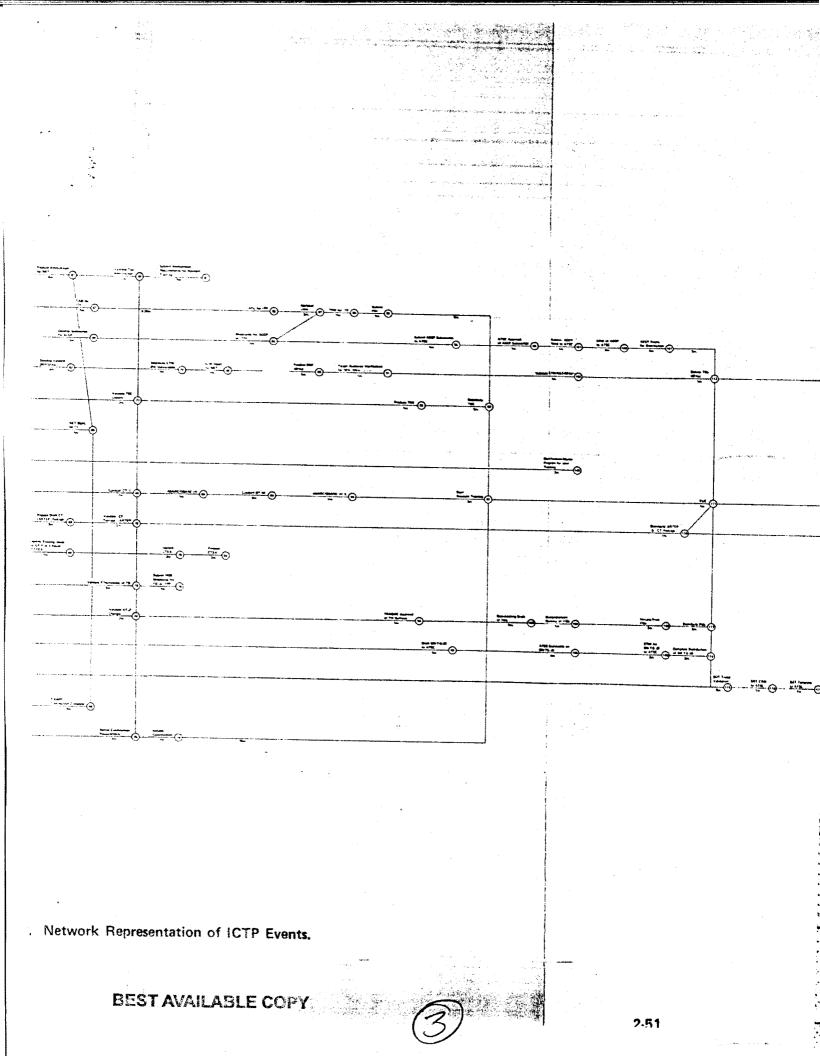


Figure 2-2. Network Rep



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same vertical line in Figure 2-2 may have ending
concurrence.

All relationships should be reviewed before proceeding. Procedures for modifying temporal relationships are described in Section 3.

2.3 REVIEW DURATIONS

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Each event associated with the ICTP has been assigned a duration. The unit of time used for these assignments was months. The VisiSchedule program, however, uses only days and weeks as the unit of duration. Therefore, while weeks were used to develop the input data, it should be interpreted as months. This means wherever you see the term weeks (for example, "Duration = 3 weeks" you should read it as months (that is, "Duration = 3 months").

Table 2-1 lists the typical durations for each event and indicates whether indicated durations are estimated or specified in TRADOC Reg. 351-9. The durations are also contained in the Job Description Report (Table 2-2). It is unlikely that these typical durations will fully meet the requirements of any individual project and you should examine them closely, documenting any changes on the extra copy of Table 2-1 presented as a worksheet in Appendix B.

In some cases, an interval may be prescribed between the completion of one event and the start of a succeeding event. For example, construction requirements for training facilities must be submitted to MACOM (#27) 60 months prior to the start of resident training (#97). In order to represent this relationship, a dummy event has been created (#126) with the prior event (#27) as its only predecessor, the later event (#97) as its only successor, and a duration equal to the interval (60 months) between the events. Durations of events (including dummy events) should be reviewed before proceeding. Procedures for modifying event durations are described in Section 3.

2.4 REVIEW SCHEDULE INFORMATION

All of the data described in Sections 2.1, 2.2, and 2.3 are used to develop an overall schedule depicting all of the events comprising the ICTP. This schedule is presented in Figure 2-3. A detailed explanation of the schedule symbols and format is included in Section 4.0 of this guide.

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TO STREET CLEAR THE SERVICES COME TO THE SERVICES COME T To Taur ave specific for any two To bear the to a thinker to average the search and The second of th

Figure 2-3. ICTP Schedule.

2.5 REVIEW MANPOWER DATA

Manpower data is reviewed during this step. These data consist of:

- Labor categories of personnel required to accomplish events,
- Amount of labor required to accomplish each event as a function of labor category, and
- Cost of each labor category

Manpower data has not yet been entered into the input data diskette. Therefore, no manpower data can be reviewed. If, however, the user intends to add such data, decisions should be made at this time regarding:

- The events for which manpower information will be provided and
- Labor categories to be included

The user is now ready to input/modify APST data. Instructions for accomplishing these changes are presented in Section 3.0 of this user's guide.

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SECTION 3 - INPUT/MODIFY DATA

This section describes procedures for inputting or modifying data on ICTP events (these events are called jobs in Visi-Schedule terminology). To input or modify job information, the user must select the MODIFY option from the Main menu (pg. 3-16).

Table 3-1 lists the input or modification activities likely to be required for training schedule development and the specific VisiSchedule procedures that are required to implement these procedures. A more detailed description of the logic underlying these procedures is presented in Figure 3-1.

It is expected that the most common input/modification activities are (a) modifying the job duration (activity #9), (b) indicating which jobs are completed (#17), and (c) slipping the schedule because of delays in completing specified events (#20).

In adding new jobs, it is important to understand the distinction between adding a job (#15) and inserting a job (#19).

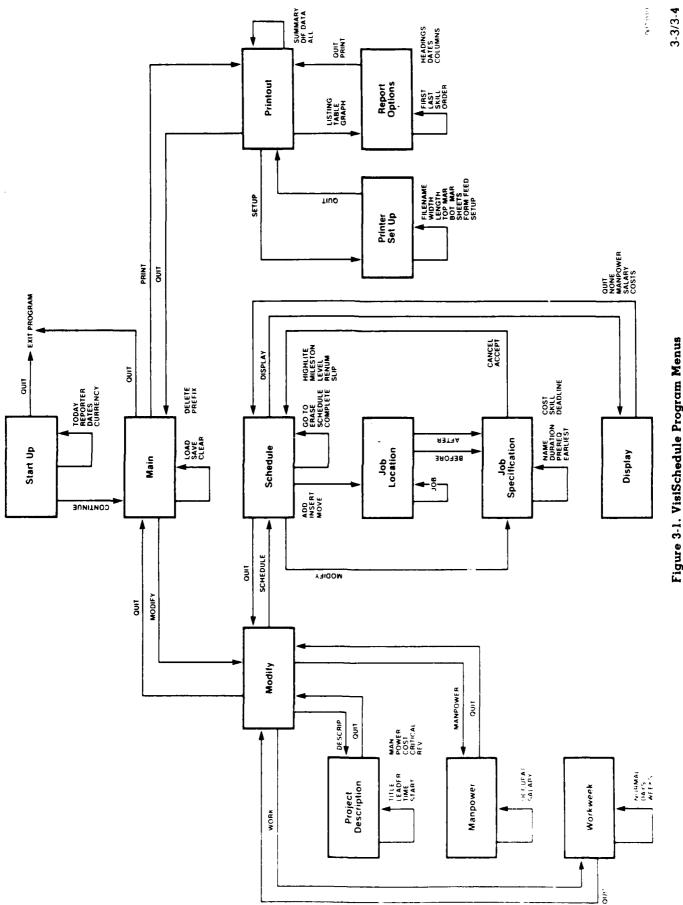
The ADD option adds a job into the job list without affecting the subsequent job scheduling. INSERT affects the scheduling of jobs later in the sequence, but ADD does not. Be sure you use the correct option when inserting (or adding) a job. Figure 3-2 shows the relationship between the two options.

A more detailed description of the differences between these two options is presented on page 3-46 of the VisiSchedule manual.

Table 3.1. Overview of Input/Modification Activities and Procedures.

PROCEDURE -4																		ENTER JOB DATA	ENTER JOB DATA	ENTER TIME PERIOD
PROCEDURE-3								ENTER JOB NUMBER(s)	MODIFY DATA	ENTER NEW JOB NUMBERS	ENTER LOCATION	ENTER JOB NUMBERS	SPECIFY JOB BEFORE/AFTER	SPECIFY JOB BEFORE/AFTER	SPECIFY JOB BEFORE/AFTER					
PROCEDURE . 2	ENTER DATA	ENTER DATA	ENTER DATA	ENTER DATA	ENTER DAIA	ENTER DATA	SELECT ERASE OPTION	SELECT MODIFY OPTION (p.3.21) ENTER JOB NUMBER(s)	SELECT MODIFY OPTION (p.3-21) MODIFY DATA	SELECT RENUM OPTION	SELECT MOVE OPTION	SELECT COMPLETE OPTION	SELECT ADD OPTION	SELECT INSERT OPTION	SELECT <u>SLIP</u> OPTION					
PROCEDURE 1	STATES OF STATES	SELECT DESCRIP, MENU (p.3.32)	SELECT DESCRIP MENU (0.3.32)	SELECT DESCRIP MENU (p.3.32)	SELECT MANPOWER MENU (p.3.34)	SELECT MANPOWER MENU (p. 3-34)	SELECT SCHEDULE MENU (p.3-41)	SELECT SCHEDULE MENU (p.3.41)	SELECT SCHEDULE MENU (p.3-41)	SELECT SCHEDULE MENU (p.3-41)	SELECT SCHEDULE MENU (p.341)	SELECT SCHEDULE MENU (p.3-41)	SELECT SCHEDULE MENU (p.3-41)	SELECT SCHEDULE MENU (p.3-41)	SELECT SCHEDULE MENU (p.3-41)	SELECT SCHEDULE MENU (p.3.41)	SELECT SCHEDULE MENU (p.3-41)	SELECT SCHEDULE MENU (p.3.41)	SELECT SCHEDULE MENU (p.3-41)	SELECT SCHEDULE MENU (p.3-41)
ACTIVITIES		ENTER/MODIFY TRAINING PROJECT NAME	ENTER/MODIFY I HAINING PROJECT LEADER	ENTER/MODIEY LINIT FOR MNPR. COSTS	ENTER/MODIFY OCCUPATION NAMES	ENTER/MODIFY SALARIES	ELIMINATE JOB (EVENT)	MODIFY JOB NAME	MODIFY JOB DURATION	MODIFY EARLIEST START DATE	MODIFY DIRECT COST FOR JOB	MODIFY MANPOWER LEVEL FOR JOB	MODIFY DEADLINE DATE	MODIFY JOB PREREQUISITES	RENUMBER JOBS	MOVE LOCATION OF JOB IN PRINTOUT	INDICATE COMPLETED JOBS	ADD A JOB IGNORING JOBS WHICH FOLLOW	ADD JOB BETWEEN TWO JOBS	SLIP SCHEDULE MOVING ALL UNCOMPLETED JOBS BEYOND SPEC. DATE

(1) INCLUDES DATA ON JOB NAME, DURATION EARLIEST START DATE, DEADLINE DATE, PREREQUISITES, AND MANPOWER LEVEL



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Figure 3-1. VisiSchedule Program Menus

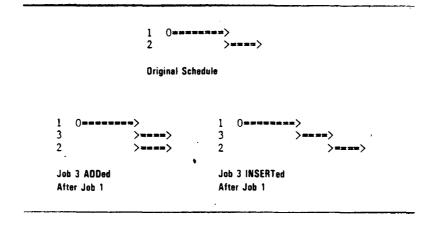


Figure 3-2 Add vs. Insert Options

SECTION 4 - SELECT/PRINT OUTPUT REPORTS

The VisiSchedule program produces four different types of reports. Brief descriptions of each of these reports follow. Procedures for generating these reports are described in Sections 4.1 to 4.4.

The Project Description Report

The Project Description Report, shown in Figure 4-1, is generated with the SUMMARY option of the printout menu (see pages 3-62). It lists the following information:

- Project name
- Project leader
- Time scale
- Start date
- The man-weeks3 required for each skill category.
- The cost for each skill category.
- The project completion date.
- The number of jobs.
- Total manpower requirements
- Total manpower cost.
- Total direct cost
- Total project cost.

³ Weeks should be interpreted as months for the APST.

```
PROJECT DESCRIPTION REPORT

First Street saler Value

Revision 5, will-32, File EXAMPLE.DATA

Prepared by Kate Largell

Description data Stelds

Name of project = first Street water Value

Leader of project = virst Street water Value

Leader of project = virst Street water Value

Leader of project = virst Street water Value

Start Jake = virst Street water Value

Start Jake = virst Street water Value

Start Jake = virst Street water Value

Start Lake = virst Street Value

Joseph Street Value

Joseph V
```

Figure 4-1 Project Description Report

The Job Description Report

The Job Description Report, shown in Figure 4-2, is generated with the LISTING option of the Printout menu. It lists the details of each job in the project or in the selected job range or for the selected skills. The job order is in the selected sorting order. The report lists all aspects of the job. Critical jobs are denoted "******Critical****** following the job name.

The report includes:

- The job duration
- The number of time units completed
- Whether the job is on the critical path
- The amount of slack time
- The prerequisites
- The manpower skills required and salaries
- The total effort
- The manpower cost
- The direct cost
- The earliest and latest start dates4
- The earliest and latest finish dates⁴

• The Tabular Job Report

The Tabular Job Report, a sample of which is shown in Figure 4-3, is generated with the TABLE option of the Printout menu. It lists different details of the project depending on the selections you make with the COLUMNS option of the Report Options menu.

⁴ This entry cannot be used unless manually converted from weeks to months.

```
Services Street water Nair

Services Street water Nair

Frequent Street water water

Frequent Street Street water water

Frequent Street Street water water

Frequent Street water water

Frequent Street water water

Frequent Street w
```

Figure 4-2 Job Description Report

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Figure 4-3 Sample Tabular Job Report

The contents of this report will vary. There are no entries that must always be included. However, if you do not make a content selection with the Columns option, the program prints a report that contains the job number and name.

• The Schedule

The sample schedule, shown in Figure 4-4, is generated with the GRAPH option of the Printout menu. The number of time units which fit on one page of the schedule depends on the printer width. With the NAMES option, you can choose to print the job numbers, names and skill names on each page of a multiple-page report or only on the first page. By printing them only on the first page, you can tape the schedule pages together to make a complete linear schedule.

More specific procedures for generating each of the reports are provided in the subsections which follow.

4.1 GENERATING THE PROJECT DESCRIPTION REPORT

To generate the Project Description Report:

- Select the PRINT option from the Main menu (see page 3-16 in the VisiSchedule manual)
- Select the MMARY option of the Printout Menu (page 3-29).

At this point, the program will allow you the report on the screen. To preview, press "Y". To stop the preview, hit RETURN. The report will then be printed.

4.2 GENERATING THE JOB DESCRIPTION REPORT

To generate the Job Description Report:

- Select the PRINT option from the Main menu
- Select the LISTING option from the Printout menu (page 3-29)
- Select the desired options from the Reports Option menu (page 3-35). There are four options that are

Figure 4-4 Sample Schedule

relevant. You can reorder the sequence of the jobs to be printed with the ORDER option. You can limit the jobs included in this report with the FIRST and LAST options, which let you specify, by job number, the first and last jobs to be included (selection is done after sorting, if required). You can further limit the reports by specifying that the report be generated for a single skill category. When a single skill category is selected, only those jobs that use the skill (the skill option) are included in the report. If you do not want any of these options, select PRINT.

Select/Ignore PREVIEW option

The report will be printed on printer.

4.3 GENERATING THE TABULAR JOB REPORT

To generate the Tabular Job Report:

- Select the PRINT option from the Main menu
- Select the TABLE option form the Printout menu (page 3-29)
- Select the desired options from the Reports Options menu (page 3-35). There are four options that are relevant. You can reorder the sequence of the jobs to be printed with the ORDER option. You can limit the jobs included in this report with the FIRST and LAST options, which let you specify, by job number, the first and last jobs to be included (selection is done after sorting, if You can further limit the reports by required). specifying that the report be generated for a single skill category. When a single skill category is selected, only those jobs that use the skill (the skill option) are included in the report. If you do not want any of these options, select PRINT.
- Select/Ignore PREVIEW Option

The report will be printed on the printer.

4.4 GENERATING THE SCHEDULE REPORT

To generate the Schedule Report:

- Select the PRINT Option from the Main menu
- Select the GRAPH option from the Printout menu (Page 3-29)
- Select the desired options from the Reports option menu (page 3-35). There are four options that are relevant. You can reorder the sequence of the jobs to be printed with the ORDER option. You can limit the jobs included in this report with the FIRST and LAST options, which let you specify, by job number, the first and last jobs to be included (selection is done after sorting, if required). You can further limit the reports by specifying that the report be generated for a single skill category. When a single skill category is selected, only those jobs that use the skill (the skill option) are included in the report. If you do not want any of these options, select PRINT.
- Select/Ignore PREVIEW Option

The report will be printed on the printer.

4.5 READING SCHEDULE OUTPUT REPORTS

An example of a page from a VisiSchedule report is presented in Figure 4-4.

Across the top is the time scale, established with the TIME options in the Project Description menu. The second line across the top gives the time period number of each time unit. The beginning of the project is time period 0, the next is 1, and so forth. The time period numbers remain the same when you change the starting date. Your reports will not show the whole schedule on a single page if the printer width is smaller than the schedule.

Across the bottom of the schedule is a list of skills needed for the time period, the manpower cost, the direct cost, and the total cost. You can display one of these items at a time on the screen display. The printed report lists the sorting order, the range of jobs included, and the skills that are covered. These details are not displayed on the monitor screen. The printed report also includes a legend explaining the symbols that are not included in the screen display. If you need this legend, keep a copy of it available when you work with a schedule on the screen.

The symbols used in the schedule are listed in Table 4-1. The parts of a time line are displayed and defined in Figure 4-5.

It is not always possible to determine a job's exact prerequisites from a schedule. The prerequisites will be among those jobs whose terminating arrows align with a job's beginning arrow. Not all of the jobs that align will necessarily be prerequisites. When viewing the schedule on the screen, you can HIGHLIGHT a job, its prerequisites and successors. You can also acquire a list of the prerequisites by selecting the PREREQ option in the Job Specification menu. Figure 4-6 shows that prerequisites may not always be obvious from the schedule.

4.6 SAVING A SCHEDULE

If you make changes to the data on the Input Data Diskette, you will want to save a copy of this updated schedule. To do this you must first select the Save option form the Main menu.

The SAVE option lets you write the project file currently in memory to the device or volume specified by the PREFIX option.

This option lists the names of the files currently on the input data diskette along with the options: (New Name) and (None). You may choose to replace the old version of the file with the changed version, or you may want to save the changed version under a new name. You can exit the option without saving anything by selecting the (none) option. which returns you to the Main menu. If there are more than 16 files on the diskette, the (More) option is added to the list. Selecting (More) displays the continuation of the list. If you want to go back to the first page, select (None), and then use the Save option again.

YOU SHOULD NOT USE THE NAME "ICTP" FOR THE FILE CONTAINING YOUR UPDATED SCHEDULE. If you do this, you will erase your master copy of the ICTP input data diskette.

Table 4-1 Schedule Symbols

Symbol	Description								
>=====>	A critical job. A critical job cannot be delayed without delaying the entire project. This symbol is used for all jobs when you choose not to show the critical path.								
>>	A non-critical job. There will be slack time associated with a non-critical job.								
>>	Slack time for a non-critical job. A job can be delayed up to its total slack time without delaying the project.								
>::::::>	A completed job.								
>::::===>	A partially-completed job. The uncompleted portion could be critical or non-critical.								
0> 0:::::::>	Jobs with no prerequisites. These jobs are sched- uled to begin on a specific date, not after the com- pletion of prerequisites.								
>=====X >::::::X	Jobs with no successors. No other jobs name these jobs as prerequisites. The last job in a project normally ends with an X. A project may have multiple finishes. Jobs with no successors are, by definition, on the critical path even if the job completion date is before the project completion date.								
•	A zero-length job with successors. It is sometimes convenient to define a job with zero duration to mark an important event or to show a job that does not require an entire time unit.								
X	A zero-length job with no successors. This is typically the end of a project.								
+	A deadline. This marks the date at which the job must be completed.								
!	A break in the schedule. If the time unit is days, this marks holidays, days off, and non-working days. If the time unit is weeks, this marks non- working weeks.								

Figure 4-5 The Schedule Time Line

- The Earliest start is a date that you specify as the job's earliest start date. A job cannot begin before this date. The earliest start defaults to time period 0 if you do not enter a value.
- The Early start is either the earliest start date or the date at which all prerequisites are completed, whichever is greater. The jobs start at this date unless changed with the Schedule or Level options.
- The Scheduled start is a start date established with the Schedule or Level options. The job begins at the early start if a scheduled start date is not created. If a scheduled start is not created, it defaults to 0.
- The Late finish is the latest date at which the job can end without delaying the project completion date. The late finish and actual finish are the same for critical jobs and may differ for non-critical jobs.
- The Deadline is the date at which the job must be finished. The deadline is created with the Deadline option. The deadline has no effect on the scheduling of the job; it is shown for informational purposes only. If a deadline is not created, it defaults to 0, meaning there is no deadline.

```
1 0---->..>
2 0---->..>
3 0---->..>
4 >---->..> Prerequisites are 1, 2, and 3
5 >-->..> Prerequisites are 1, 2, and 3

1 0---->..>
2 0---->
3 0---->
4 >--->..> Prerequisites are 1 and 3
5 >-->..> Prerequisite is 2
```

ķ

Figure 4-6 Prerequisites

If you choose (New Name), you are prompted for a 10-character name. A file name is limited to alphanumeric characters and the period; all other characters are rejected. The file name must begin with a letter, and lowercase letters are converted to uppercase. The program appends ".DATA" to the end of the name you supply.

It is good practice to use the save option frequently when entering a large schedule or when your sessions with new or modified data covers an extended period of time.

SECTION 5 - POTENTIAL USERS OF APST

5.1 FORECASTING

The APST can be used to predict when various ICTP events can be initiated or completed. In addition, APST can be used to ask "what if" questions concerning the impact of changes in schedule of specific events on the overall training development schedule, level of effort required, and cost.

5.2 PROJECT MANAGEMENT

The APST can also be used to aid the management and coordination of the training development process. APST provides tools to:

- Monitor progress of individual events,
- Examine level of effort required for scheduled events and availability of required labor categories,
- Track costs against schedule, and
- Determine impact of schedule slippages or gains on overall training development process

5.3 ADDITIONAL SOFTWARE FEATURES

The VisiSchedule program has many additional features which the user will want to employ as he gains experience with the program. For instance, the program has a leveling option (see page 3-48) which automatically adjusts scheduled start dates within their slack time to reduce peak manpower requirements. The user interested in obtaining a more detailed description of the VisiSchedule features should consult the VisiSchedule manual.

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SECTION 6 - EXAMPLE

This section details the steps required to modify a job in the input data diskette. The instructions begin at the point when the user has already loaded the VisiSchedule software and the APST input data diskette as described in Section 1.4.

6.1 GO TO MODIFY MENU

You should start on the Main Menu. Highlight the Modify Block with the cursor and press <u>RETURN</u>. Modify Menu will be displayed (see Figure 6-1).

Modify Menu

Project title, leader, time scale, etc.

Description Manpower Work Schedule

Quit

Figure 6-1. Modify Menu.

6.2 DISPLAY CURRENT TRAINING DEVELOPMENT SCHEDULE

Highlight the Schedule Block of the Modify Menu and press RETURN. Current Schedule will be displayed (see Figure 6-2).

		Ja	n				Fet	•			Mar	٠.			Apr
Job	Description	1	8	15	22	29	5	12	19	26	5	12	19	26	2
		0	1	2	3	4	5	6	7	8	9	10	11	12	13
1	CFEA FOR ARTEP	0=:	====	= >											
2	DRAFT CT CONCEPT			>==	=>					•					*
3	IDENT I&C TASKS FOR UNIT TANG	0-	-> .		. >										
4	DEVELOP PRELIMINARY CTEA	0		->	. >										
5	LOA/DICTP		٠		>=:	===	===:	= >		*					•
6	DEV TRNG ALTER BASED ON CTEA							>	-> .						. >
7	DRAFT NETP	0~	-> .					. >							
8	PROGRAM MANAGEMENT PLAN (PMP)							>==	===	===	= >				
9	REVIEW DRAFT NETP		>	-> .							. >				
10	ASARC/DSARC 1										>=:	= >		.•	

Add a new job to the list

Add	Insert	Erase	Move	Complete
Modify	Goto	Schedule	More	Quit
To scroll,	ente <u>r</u> a nu	mber then_U D	L R	

Figure 6-2. Project Schedule Menu.

6.3 MODIFY JOB

Highlight Modify block of the Project Schedule Menu and press $\underbrace{\text{RETURN}}_{6-3}$. Program will ask you to select a job (see Figure 6-3).

		Ja	n				Fe	b			Mar	٠,			Apr
Jab	Description	1	8	15	22	29	5	12	19	26	5	12	19	26	2
		0	1	2	3	4	5	6	7	8	9	10	11	12	13
1	CFEA FOR ARTEP	0=	===	= >							•				
2	DRAFT CT CONCEPT			>==	= >										
3	IDENT I&C TASKS FOR UNIT TRNG	0-	-> .		. >										-
4	DEVELOP PRELIMINARY CTEA	0~		-> .	. >										
5	LOA/OICTP				>==		===	=>	٠				•	•	
6	DEV TRNG ALTER BASED ON CTEA							>	->						. >
7	DRAFT NETP	0~	-> .			. 		. >							
8	PROGRAM MANAGEMENT PLAN (PMP)							>==	===	===	= >				
9	REVIEW DRAFT NETP		>-	-> .		.					. >				
10	ASARC/DSARC 1										>= :	= >			

Modify which job?

Add	Insert	Erase	Move	Complete
Modify	Goto	Schedule	More	Quit

Figure 6-3. Select Job to Modify.

6.4 IDENTIFY JOB TO BE CHANGED

Enter job number for job to be modified (e.g., 2) and press RETURN. This will lead you to Modify Job Menu (see Figure 6-4).

		Jai	n				Fe	þ			Mar	٠.			Apr
Job	Description	1	8	15	55	29	5	12	19	56	5	12	19	26	2
		0	1	2	3	4	5	6	7	8	9	10	11	12	13
1	CFEA FOR ARTEP	0=	== :	=>								•			•
2	DRAFT CT CONCEPT			>= :	= >							•			•
3	IDENT ISC TASKS FOR UNIT TRNG	0-	-> .		. >							•	•	•	
4	DEVELOP PRELIMINARY CTEA	0-		-> .	. >							٠		•	•
5	LOA/OICTP	٠		•	>=	# =	# 3 5	= >	٠		•	•	٠	•	•
6	DEV TRNG ALTER BASED ON CTEA				٠			>	-> .						.>
7	DRAFT NETP							. >							
8	PROGRAM MANAGEMENT PLAN (PMP)							>= :							
9	REVIEW DRAFT NETP														
10	ASARC/DSARC 1							•			>=	=>	•	••	•

Modify Job 2

Accept	Name	Duration	Prereq	Earliest
Cost	Skill	Deadline		Cancel

Figure 6-4. Modify Job Menu.

6.5 MAKE CHANCES TO JOB

You must decide what changes will be made to the job. For this example, changes will be made to the Job Duration and to the Prerequisites for the job.

In order to modify Job Duration, highlight Duration and press $\underline{\text{RETURN}}$. Program will ask you to enter an integer number of weeks and will display the current Job Duration (see Figure 6-5).

		Ja	n				Fet)			Mar	٠.			Apr
Job	Description	1	8	15	55	29	5	12	19	26	5	12	19	26	2
		0	1	2	3	4	5	6	7	8	9	10	11	12	13
1	CFEA FOR ARTEP	0=	= =:	=>											
2	DRAFT CT CONCEPT			>==	=>										
3	IDENT ISC TASKS FOR UNIT TRNG	0-	-> .		. >										
4	DEVELOP PRELIMINARY CTEA	0		-> .	. >										
5	LOA/GICTP) =:	===	===:	= >							
6	DEV TRNG ALTER BASED ON CTEA							>	-> .						. >
7	DRAFT NETP	0-	-> .					. >							
8	PROCRAM MANAGEMENT PLAN (PMP)							> ==	==:		= >				
9	REVIEW DRAFT NETP		>	~> .		. 					. >				
10	ASARC/DSARC 1										>==	= >		.•	

Enter an integer number of weeks

Accept	Name	<u>Duration</u>	Prereq	Earliest
Cost	Skill	Deadline		
,				

Figure 6-5. Modify Job Duration.

In order to revise the duration to four months enter a 4 and press RETURN. (Remember that program can only deal in days or weeks. You must interpret periods on the project schedule as months and ignore dates printed above period numbers). See Figure 6-6 for a listing of the frame.

		Jar	n				Fel	b			Mar	٠,			Apr
Job	Description	1	8	15	55	29	5	12	19	26	5	12	19	26	2
		0	1	2	3	4	5	6	7	8	9	10	11	12	13
1	CFEA FOR ARTEP	0=:	==:	= >											
2	DRAFT CT CONCEPT			>==	= >										
3	IDENT I&C TASKS FOR UNIT TRNG	0-	-> .		. >										
4	DEVELOP PRELIMINARY CTEA	0		->	. >										
5	LOA/GICTP				>=:	===	===	=>							•
6	DEV TRNG ALTER BASED ON CTEA							>	-> .						. >
7	DRAFT NETP	0-	-> .				. 	. >							
8	PROGRAM MANAGEMENT PLAN (PMP)							>==		===	= >				
9	REVIEW DRAFT NETP		>-	-> .							. >				
10	ASARC/DSARC 1										>==	= >		.•	

Other Jobs that must be completed first

Accept	Name	Duration	Prereg	Earliest
Cost	Skill	Deadline		Cancel

Figure 6-6. Modify Job Prerequisites.

With Prerequisite highlighted, press $\underline{\text{RETURN}}$. Current prerequisites will be displayed (see Figure 6-7).

		Jai	n				Fet)			Mar	٠.			Apr
Job	Description	1	8	15	55	29	5	12	19	26	5	12	19	26	2
		0	1	2	3	4	5	6	7	8	9	10	11	12	13
1	CFEA FOR ARTEP	0=:	==n:	= >											
2	DRAFT CT CONCEPT			>==	= >										
3	IDENT I&C TASKS FOR UNIT TRNG	0-	-> .		. >										
4	DEVELOP PRELIMINARY CTEA	0		->	. >										
5	LOA/OICTP			•	>==	===	-22:	= >					٠		•
6	DEV TRNG ALTER BASED ON CTEA							>	->						. >
7	DRAFT NETP	0-	-> .					. >							
8	PROGRAM MANAGEMENT PLAN (PMP)							>==	===		= >				
9	REVIEW DRAFT NETP		>	-> .				.			. >				
10	ASARC/DSARC 1										>==	:>			

Enter job numbers separated by commas

Accept	Name	Duration	Prereq	Earliest
Cost	Skill	Deadline		
1				

Figure 6-7. Enter Revised Prerequisites.

Enter revised prerequisites (i.e., 1, 3) and then press RETURN.

In order to have both changes made to Job number 2 reflected in the project schedule shown on the screen highlight $\overline{\text{ACCEPT}}$ and press RETURN.

Revised schedule will be displayed and you will have option to make further modifications to the same task or to modify other tasks (see Figure 6-8).

		Jai	٦.				Fe	b			Mar	•			Apr
Job	Description	1	8	15	55	29	5	12	19	26	5	12	19	26	5
		0	1	2	3	4	5	6	7	8	9	10	11	12	13
1	CFEA FOR ARTEP	0=	===:	= >											
2	DRAFT CT CONCEPT			>==	:==		2#=	= >							
3	IDENT IEC TASKS FOR UNIT TRNG	0-	-> .	. >											
4	DEVELOP PRELIMINARY CTEA	0		-> .				. >							
5	LOA/DICTP	•	•	•	٠	٠		>=:	===	E = 31	= >		•		•
6	DEV TRNG ALTER BASED ON CTEA										>	-> .			
7	DRAFT NETP	0-	-> .								. >				
8	PROGRAM MANAGEMENT PLAN (PMP)								•		>==	# = :	***	= >	•
9	REVIEW DRAFT NETP		>	-> .										. >	
10	ASARC/DSARC 1													>= :	= >

Modify a job's name, duration, etc.

Add Insert Erase Move Complete

Modify Goto Schedule Move Quit

To scroll, enter a number then U D L R

Figure 6-8. Revised Project Schedule.

6.6 SAVE REVISED PROJECT SCHEDULE

Highlight $\frac{QUIT}{QUIT}$ and press $\frac{RETURN}{RETURN}$ to get to Modify Menu. Highlight $\frac{QUIT}{QUIT}$ and press $\frac{RETURN}{QUIT}$ again to get to Main Menu where you can use the SAVE option.

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LIST OF ACRONYMS

ACCP Army Correspondence Course Program

AD Advanced Development

ARTEP Army Training and Evaluation Program

ASARC Army Systems Acquisition Review Council

ATL Army-Wide Training Literature

ATLP Army-Wide Training Literature Program

ATSC Army Training Support Center

CAD Course Administrative Data

CFEA Collective Front-End Analysis

CRM Camera-Ready Mechanicals

CT Collective Training

CTA Common Table(s) of Allowance

CTEA Cost and Training Effective Analysis

DA Department of the Army

DAAPP Department of the Army Audiovisual Production

Program

DEH Director of Engineering and Housing

DEP Draft Equipment Publication

DSARC Defense Systems Acquisition Review Council

DVAL PHASE Demonstration and Validation Phase

ETM Extension Training Material

FBOIP Final Basis of Issue Plan

FEA Front-End Analysis

FM Field Manual

FSD Full Scale Development

FUE First Unit Equipped

I&C Individual & Collective

IOC Initial Operational Capability

ITP Individual Training Plan

ITPP Individual Training Plan Proposal

JB Job Book

LOA Letter of Agreement

LSA Logistics Support Analysis

MACOM Major Army Command

MOS Military Occupational Specialty

NET New Equipment Training

NETP New Equipment Training Plan

NETT New Equipment Training Team

NMIL New Materiel Introduction Letter

NMIT New Materiel Introduction Team

OICTP Outline Individual and Collective Training

Plan

OT Operational Testing

PDEP Preliminary Draft Equipment Publication

PMP Program Management Plan

POI Program Of Instruction

RFP Request for Proposal(s)

ROC Required Operational Capability

SM	Soldier's Manual
SOW	Statement of Work
SPA	Skill Performance Aid
SQT	Skill Qualification Test
TD	Training Device
TDR	Training Device Requirement
TEC	Training Extension Course
TG	Trainer's Guide
TM	Technical Manuals
TPW	Training Program Worksheet

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APPENDIX A ICTP PRODUCT ORIENTED PLANNING SCHEDULES

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ICTP Product Oriented Planning Schedules*

C-1. General. The following paragraphs provide the milestones and time/event phasing needed for the efficient planning, integration, and development of the training package for developing material systems. No one system may require all of the schedules provided. Additionally, the phasing of an element of the training subsystem must be coordinated with the real world system decision/milestones and adjusted accordingly. The conduct of the system/equipment support analysis specified in the request for proposal (RFP) supports all training products.

C-2. Skill Performance Aids (SPAS).

a	Development milestones	Phasing
(1)	Prepare target audience descriptions.	Prior to initial RFP.
	Prepare statement of work (SOW) for ary draft equipment publication (PDEP).	Initial RFP.
(3)	Develop and validate PDEP.	OT I.
	Prepare target audience & SOW for uipment publication (DEP).	FSD RFP.
(5)	Develop and validate DEP.	Prior to OT II.
(6) required		Formal task review board.
	Provide SOW for inclusion under irement package.	Production contract.
(8)	Finalize DEP.	Production phase.
(9)	Target audience verification.	Production phase.
(10) package.	Validate and verify ETM/NET	Production phase.
(11)	Deliver TM.	FUE.
(12) units.	Provide NET and ETM to receiving	FUE/IOC.

^{*}Taken from TRADOC Reg 351-9

- b. Notes.
- (1) The development of TM and NET ETM for developing systems is a DARCOM responsibility. Product schedules should be developed to insure TRADOC participation in all aspects of the development of these products, and maximum utilization of the TM as a training resource.
- (2) ETM schedules should be developed as soon as the requirement is identified. The NET package developed during the production contract phase should be formatted to be easily placed in the existing TRADOC and unit training environment with little or no modification. (This reduces the possibility of TRADOC developing duplicative materials.)
 - (3) Reference chapter 8, AR 310-3.

C-3. Individual training plans.

a. Development milestones

(1) Individual training plan proposal

Phasing

Prior to beginning of (ITPP). analysis phase of the TD process for the MOS, specialty, or functional area involved. Usually 30 to 36

months prior to start of resident training for a new or heavily revised MOS or specialty.

(2) Conduct analysis.

Upon receipt of contractor analysis and as scheduled in ITPP and accompanying analysis plan.

(3) Annotated task list (ATL).

After determination of recommended training site, using TRADOC Reg 351-6, TBP, (institution or unit) but at least 4 months before required submission of POI for any of the affected resident courses (i.e., at least 10 months prior to the earliest resident course start date supported by the ATL). Submission must also be prior to scheduled submission date for the training program worksheet (TPW).

(4) Course administrative data (CAD).

At least 18 months prior to the beginning of the fiscal year in which the course start date for the new or revised resident course falls.

(5) Training program worksheet (TPW).

After site selection (and submission of ATL) but prior to start of any substantial work on extension training products supporting the MOS, specialty, or functional area involved.

(6) Updated ITPP.

Submitted as necessary to reflect changes in training requirement or concept, milestone schedules, and resources required. Although updates may be submitted at any time, whether or not previoually scheduled, as a minimum, one will be scheduled as soon as possible after completion of site selection, about the same time as the ATL.

(7) Program of instruction (POI).

Not later than 6 months prior to course start date for the resident course involved.

(8) Resident course start date.

In time to support FUE. Should normally precede FUE by period of time at least equal to course length.

b. Notes.

(1) A separate new or revised ITPP and supporting documents must be prepared for each MOS, specialty, or functional area in which training is required to support the system. However, a single ITPP may add training on several systems to the training program for a single MOS or specialty. If the system will be supported by more than one MOS or specialty, a separate appendix will be prepared for each ITPP which will be submitted or revised.

- (2) Each resident course to be established or revised requires a separate CAD and POI. All CAD and POI required for an MOS, specialty, or functional area should be listed in the same appendix with the related ITPP and ATL; each CAD and POI should clearly identify the course involved. Care must be taken to include officer and NCO courses, functional courses, and transition courses as well as initial entry training.
- (3) Preparation of the ITPP and other ITP documents is based, directly or indirectly, on the start date for resident training which will normally precede FUE by a period of time equal to the length of the resident course. When an ITP for an MOS, specialty or functional area contains more than one resident course, the ITPP and ATL must be scheduled based on the date for the course with the earliest training start date. Scheduling of CAD and POI should be based on the start date for the particular course involved.
- (4) The dates required in this appendix do not include all phases of the training development process for individual training required by TRADOC Reg 350-7, TBP. These will be scheduled in the appropriate ITPP. Other dates, for example, development and publication of Soldier's Manuals, Trainer's Guides, SQT, and extension training materials, are scheduled in the appropriate product-oriented appendix of the ICTP and in the appropriate ITPP.
- (5) Resident course development efforts must be coordinated by the MOS proponent to insure that previous training development efforts by the contractor, DARCOM, and other agencies are considered during the design phase. Development conducted for NET or instructor and key personnel training (IKPT) should not be duplicated.
 - (6) References:
- (a) TRADOC Reg 351-1, TBP, Training Requirements Analysis System (TRAS)/Individual Training Plan (ITP).
 - (b) TRADOC Reg 350-7, TBP, A Systems Approach to Training.
 - (c) TRADOC Reg 351-6, TBP, Support of Training in Units.
 - (d) TRADOC Reg 351-7, Format for Programs of Instruction (POI).

C-4. Unit training.

a. Development milestones

Phasing

- (1) Identify individual and collective tasks to be included in unit training.
- Include in OICTP or ICTP.

- (2) Develop the following:
- (a) Integration training strategy.

Prior to OT II.

(b) Transition training strategy. Prior to OT II.

(c) Sustainment training strategy. Prior to OT II.

(d) Certification program. Prior to FUE.

(e) Master program. Prior to FUE.

(f) Crew, battle or situational drills. Prior to OT II.

(g) Simulations - or incorporate training Prior to OT II. in existing simulations.

(h) Weapon systems training plan. Prior to OT II.

(i) Model training exercises. Prior to OT II.

(j) Support systems training plan. Prior to OT II.

(k) ARTEP (See C-16).

b. Notes.

- (1) Developing integration transition and sustainment training strategies, a certification program, and a master program are portions of individual training and will be scheduled in the applicable ITPP and performed by the MOS proponent when required to support the material system. In this case, these items, if included in the ICTP, should be separately scheduled for each MOS affected.
- (2) Multi-echelon training. New systems/equipment training is required at command, supervisory, operator, and maintenance echelons if OT II and NET are to be effective.
 - (3) References.
 - (a) TRADOC Reg 351-6, TBP, Support of Training in Units.
- (b) TRADOC Pam 310-8, Collective Front-End Analysis (CFEA) for Development of Army Training and Evaluation Program (ARTEP) and a Method for the Development of Drills.
 - (c) TRADOC Pam 351-4(T), Job and Task Analysis Handbook.

C-5. Army Correspondence Course Program (ACCP).

a. Development milestones (1) Identification of tasks and/or jobs Include in OICTP and/or to be included in nonresident course(s). ICTP, as appropriate.

TRADOC Reg 351-9

(2) Develop subcourses.

In conjunction with other course(s) (NET, resident, etc.), need prior to OT II.

(3) Develop and submit MOS specific milestones and requirements for ACCP in the ITPP.

Prior to the start of the job and task analysis for the MOS.

(4) Submit subcourses to USATSC, ATTN: ATIC-IPD (5 copies).

FUE minus 12 months.

(5) USATSC approve subcourses.

FUE minus 11 months.

(6) Submit breakdown sheet of supportive material needs to USATSC, ATTN: ATIC-IPD.

FUE minus 10 months.

(7) Submit camera-ready mechanical to USATSC, ATTN: ATIC-IPD.

FUE minus 7 months.

(8) ACCP ready for distribution.

FUE minus 3 months.

b. Notes.

- (1) Milestone on which to base backward planning sequence -- FUE. A 3 month lead training period is required to ensure train-up time for FUE.
- (2) Each ACCP course should be scheduled to include all maintenance, operator, operational and tactical areas.
- (3) Revisions to current ACCP courses will adhere to the above development sequence.

C-6. Army-wide Training Literature Program (ATLP).

a. Development milestones

Phasing

(1) Identify requirements in the TRADOC Portion 5-year ATLP (TRADOC Suppl 1 to AR 310-3) for revision/change or new requirements for FM (doctrinal and training), TC, ARTEP, and GTA. Need should be identified as a result of FEA and refined as a result of DT/OT 1. Proponent should coordinate projected ATLP requirements with other agencies (TRADOC schools and DARCOM agencies).

Prior to OT I if possible.

(2) Validate draft ATLP changes.

During OT I and II.

(3) TRADOC, DCSDOC will approve selected doctrinal FM outlines. All other outlines will be approved by proponent agency, obtaining Integrating Center and USACAC approval, as required. Refer to TRADOC Reg 11-7.

FUE minus 15 months.

(4) Coordinating draft. Circulate to outside agencies for review and comment. Selected doctrinal FM will require TRADOC/USACAC approval. Refer to TRADOC Reg 11-7 and TRADOC Reg 310-3.

Completed at FUE minus 9 months.

(5) Comprehensive dummy. Selected doctrinal FM will require TRADOC/USACAC approval. Refer to TRADOC Reg 11-7.

FUE minus 8 months.

(6) Initiate print request. Forward DA Form 260, along with approved camera-ready mechanicals and comprehensive dummy to Cdr, USATSC, ATTN: ATIC-AET-L. Refer to TRADOC Reg 310-3.

FUE minus 6 months.

(7) Print and distribution complete.

FUE

- b. Notes.
- (1) Milestone date on which to base backward planning sequence -- FUE.
- (2) Existing ATLP items will be reviewed every 18 months (AR 310-3). Scheduled revision/changes will be identified in the TRADOC Portion 5-year ATLP. Preparing agencies may print limited copies for instructional requirements pending receipt of DA printed copies.
- (3) List each document affected by the developing material system by its numerical designation and title.
- (4) ATLP products must be verified during OT II or other test/evaluation. Finalization should be dependent on this verification and milestones adjusted accordingly.
 - (5) References.
- (a) AR 310-3, Preparation, Coordination and Approval of DA Publications, with TRADOC Suppl 1.
 - (b) TRADOC Reg 310-3, Preparation of Army-Wide Training Literature.
 - (c) TRADOC Reg 11-7, Operational Concepts and Army Doctrine.

- C-7. Support of Unit Training Plan (SUTP). The unit training plan in the Soldier's Manual and/or Trainer's Guide has two parts:
- a. Part I shows the relationship for an MOS skill level between job or duty position and critical tasks which are grouped by task commonality (subject areas). It identifies by duty position the task subject areas in which the soldier must be trained for entry, integration, and sustainment training. By relating duty positions, the unit training plan also indicates how the soldier can be cross-trained or trained-up.
- b. Part II lists by general subject areas the critical tasks to be trained in an MOS, the recommended products to use, the type of training required (entry, integration, or sustainment), how to train (SOJT, NCODP, or multi), and a crosswalk to a drill or ARTEP task as appropriate.

The SUTP must be updated to accompany the new system at the same time as the Soldier's Manual and/or Trainer's Guide in which it is contained.

C-8. Soldier's Manuals (SM), Trainer's Guides (TG) and Job Books (JB).

Development milestones

(1) Review FEA. This analysis is the basis for the total training package to include individual tasks to be performed at each skill level. Task lists should be screened to insure that they are limited to critical tasks and do not include steps and procedures found in Technical Manuals or administrative publications. An accelerated system development schedule will require early FEA completion. Instructions on how to conduct training on new systems must be incorporated in the Trainer's Guide.

Phasing

After receipt of LSA/ FEA packet from contractor.

- (2) Draft SM/TG to USATSC, ATIC-SMD.
- (3) USATSC staffing and return of comments to proponent.
- (4) Camera-ready mechanicals of SM/TG/JB to USATSC, ATTN: ATIC-AET-L. JB completed after receipt of SM comments.
 - (5) Print/distribution complete.

b. Notes.

FUE minus 13 months.

FUE minus 9 months.

FUE minus 6 months.

- (1) Milestone on which to base backward planning sequence -- FUE. This is a minimum requirement. To support the system with training materials, SM should be provided at FUE.
- (2) Initiation of new or revisions to current SM/TG/JB must be planned for all effected MOS and skill levels. Basic document is system QQPRI, associated MOS decision, and ITPP.
- (3) Revisions and new initiatives will follow above development sequence. Revisions or changes to current SM/TG/JB will normally adhere to ATLP revision cycle (see paragraph C-6). Exceptions to this policy will be addressed to USATSC, ATIC-SMD, on a case-by-case basis.
- (4) Relief from SQT development does not include relief from soldier training product development (SM/TG/JB). Soldier training products must be fielded to support new/enhanced systems.
 - (5) References.

a. Development milestones

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- (a) AR 310-2, Identification and Distribution of DA Publications.
- (b) AR 310-3, Preparation, Coordination and Approval of DA Publications, with TRADOC Suppl 1.
 - (c) TRADOC Reg 351-6, TBP, Support of Training in Units.
 - (d) TRADOC Reg 351-11, TBP, SM/TG/Job Book Policies and Procedures.
- C-9. Skill Qualification Test (SQT). Milestones below should be used if the LCSMM results in a requirement for a SQT for a new MOS or requirement exists for revision of MOS.

Phasing

(1) Review FEA. This analysis is the After receipt of LSA/ FEA packet from basis for the total training package to incontractor. clude individual tasks to be performed at each skill level. Prior to submission of CRM. (2) Troop validation. (3) Camera-ready mechanicals to USATSC. SOT minus 3 months. SQT administration date. (4) SQT Notice distribution complete. (5) Scoring templates to USATSC, SQT minus 2 months. ATIC-SMD. SQT administration date. (6) SQT material distribution complete.

- b. Notes.
- (1) Milestone on which to base backward planning sequence --normal SQT test period allowing for a l year training period after FUE.
- (2) Initiation of new or revisions to current SQT must be planned for all effected MOS and skill levels. Basic source document is system QQPRI and associated MOS decision.
- (3) SQT test eligibility date is effected by training time for new equipment ((1) above), and the availability of new or revised/changed Soldier's Manuals.
 - (4) References.
 - (a) TRADOC Reg 351-2, SQT Policy and Procedures.
 - (b) TRADOC Reg 351-11, TBP, SM/TG/Job Book Policies and Procedures.

C-10. Training Extension Course (TEC).

a. Development milestones.	Phasing
(1) Review FEA. This analysis should identify TEC requirements to support high-risk tasks.	After receipt of LSA/FEA packet from contractor.
(2) Tentative validation of requirement.	OT I.
(3) Submit requirements to USATSC, ATTN: ATIC-AET-TC.	Requested date minus 23 months.
(4) Complete review, revision, and approval of requirements by USATSC, ATTN: ATIC-AET-TC.	NA
(5) Start processing for award of development contract.	Requirement date minus 20 months.
(6) Initiate development.	Requirement date minus 14 months
(7) Validation of lessons and requirement in storyboard format.	OT I*
(8) Initiate reproduction from master materials.	Requirement date minus 3 months.
(9) Distribution complete.	FUE/NET/course start date.

- b. Notes.
- (1) Milestone date on which to base bac ward planning sequence -- FUE/NET/course start date.
 - (2) List each TEC requirement by title and lesson number when available.
 - (3) This procedure applies to TEC developed for developing systems.

C-11. Training devices.

a. Development milestones	Phasing
(1) Review FEA. This analysis must identify high risk/hard to train tasks.	After receipt of LSA/FEA packet from contractor.
(2) TDLOA development.	In preparation for DT/OT I.
(3) Validate concept for device.	DT/OT I.
(4) Incorporate in ICTP.	In preparation for ROC/LR submission.
(5) Analytical justification via CTEA as input to COEA.	In preparation for ROC submission.
(6) TDR/LR development.	In preparation for ROC submission.
(7) Validate effectiveness of device.	DT/OT II or FDTE.
(8) Develop and submit MOS specific milestones and requirements for training devices in the ITPP.	Prior to start of job and task analysis for the MOS.

b. Notes.

- (1) Milestone on which to base backward planning sequence -- FUE or course start date. The device(s) must be available in the quantity and number to support initial and sustainment training.
 - (2) References.
 - (a) AR 71-9, Materiel Objectives and Requirements.
 - (b) TRADOC Reg 71-9, User Testing and Evaluation.
- (c) AR 70-10, Test and Evaluation During Development and Acquisition of Materiel.

C-12. Department of the Army Audiovisual Production Programs (DAAPP).

a. Development milestones Phasing (1) Review FEA. This analysis should After receipt of LSA/ identify those high risk tasks and jobs FEA packet from contractor. requiring DAAPP support. OT I. (2) Tentative validation of requirements using storyboard format. (3) Submit DAAPP requirements to USATSC, Require 6 1/2 months prior ATTN: ATIC-AET-AV. to start of FY. (4) DA approval of requirements. Start of FY in which required. Requirement date minus (5) Initiate production and distribution 9 months. sequence. FUE/NET/course start date. (6) Distribution complete. b. Notes. (1) Milestone date on which to base backward planning sequence --FUE/NET/course start date.

- (2) List each DAAPP requirement and the course it supports.
- (3) References.
- (a) AR 108-2, Army Training and Audiovisual Support, with TRADOC Suppl 1.
- (b) TRADOC Pam 350-2, ETV Handbook for Training Developers.

C-13. Facilities, ranges and real property.

a. Development milestones	Phasing
(1) Review FEA. This analysis should provide insights into facility, range and real property requirements.	After receipt of LSA/ FEA packet from contractor.
(2) Submit construction requirements to MACOM. Source document is BOIP.	Requirement date minus 5 years.
(3) Task supporting Director of Engineering and Housing (DEH) to develop construction requirements.	Prior to OT I.

(4) Validate requirements and update, as required.

OT I.

(5) Identify supportive developments/ requirements such as targets, simulators, devices and coordinate availability or development. With development of construction requirements.

(6) Installations submit requirements to MACOM with other construction requirements.

Requirement date minus 3 1/2 years.

(7) Refine construction requirements and/ or range criteria and forward to MACOM. OT II.

(8) Initiate construction. Dates can be obtained from New Material Introductory Letter (NMIL).

To meet training requirement date.

b. Notes.

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- (1) Milestone on which to base backward planning sequence -- FUE, NET and/or resident course start date. Installation usage will dictate.
 - (2) Categories of construction funding:
- (a) Major, Military Construction, Army (MCA), \$75,000 & above. Requires Congressional approval for each specific project. Development sequence is shown above.
- (b) Operation and maintenance, Army (OMA), up to \$75,000, approved by installation commander if funds are available. Early programing is necessary. Development sequence should follow the above.
- (c) Exigent requirements can be funded by Minor Military Construction, Army (MMCA). Requires a certification of justification and should only be used under exceptional circumstances. It, in effect, negates the normal construction development sequence.
 - (3) Range criteria include:
 - (a) Scenario.
 - (b) Terrain/hydrography.
 - (c) Intervisibility/vegetation.
 - (d) Weapon systems and targets.
 - (e) Mobility.

TRADOC Reg 351-9

- (f) Range fan.
- (g) Safety.
- (h) Ecology.
- (4) References.
- (a) AR 415-15, Military Construction, Army MCA Program Development.
- (b) AR 415-28, Department of the Army Facility Classes and Construction.
- (c) AR 415-35, Minor Construction.

C-14. Training ammunition.

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a. Development milestones

(1) Review FEA. This analysis should specify ammunition items required to support training (does not include conventional ammunition used for training).

- (2) Tentative validation of ammunition requirement.
- (3) Include requirement in TDR/ROC/LR submission.
 - (4) Submit FBOIP for CTA.
- (5) Provide input to installations for Worldwide Ammunition Reporting System (WARS) report.
 - (6) Develop ammunition item.
 - (7) Validate/test.
- (8) Develop and submit estimated ammunition requirements for individual resident courses.
 - (9) Produce.

Phasing

After receipt of LSA/ FEA packet from contractor.

OT I.

During document preparation.

With TDR/ROC/LR.

Immediately following TDR/ROC/LR submission.

Prior to OT II.

OT II.

Submission of new or revised ITPP as scheduled IAW paragraph C-3.

For FUE/NET or course start date.

- b. Notes.
- (1) Milestone on which to base backward planning sequence -- FUE/NET or course start date.

- (2) BOIP feeder data, DA Form 3362 B-R, will be prepared by the USAEARC based on data provided by the PM. This data is provided to TRADOC who in turn forwards to the proponent for development of the BOIP.
- (3) When required for long lead time development devices, a BOIP-T will be submitted with the requirement document or no later than 2 years prior to type classification. All BOIP-C will be required at HQ DA NLT 12 months prior to type classification.
- (4) All training ammunition available for OT requirements must be included in the WARS report.
 - (5) References.
- (a) AR 15-16, Department of the Army Committee for Ammunition Logistic Support.
- (b) AR 71-2, Basis of Issue Plans (BOIP), Qualitative and Quantitative Personnel Requirements Information (QQPRI).
- (c) AR 310-34, Equipment Authorization Policies and Criteria, and Common Table of Allowances.
- (d) AR 700-22, Worldwide Ammunition Report System (WARS), with TRADOC Suppl 1.
 - (e) CTA 23-100 Series.

C-15. New equipment training (NET).

a. Development milestones

(1) Develop draft new equipment training plan (NETP) by DARCOM in conjunction with TRADOC proponent.

Phasing

Within 30 days of:

- Development of a TQQPRI.
- Initiation of a program management plan.
- Receipt of a procurement directive for a new or modified end item of equipment.
- Reentry of an obsolete system/equipment component into the Army inventory.

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(2) Coordination of NETP (all MACOM involved) by USATSC, ATIC-DST-D.

Within 30 days of receipt of the draft NETP, these commands or agencies will complete and return inputs to the plan to the responsible materiel development command or agency. Individual NETP will be included in the appropriate consolidated NETP and coordinated with all MACOM semiannually.

(3) Staff planner courses by DARCOM.

Conducted during the research and develop-ment cycle.

(4) Technical training courses for DT/OT personnel, key instructor, key depot and other personnel as required by DARCOM.

Prior to appropriate test schedule and institutional training start dates. Exact dates determined mutually between the materiel developer and the training developer.

(5) New material introduction letter (NMIL) and new material introductory team (NMIT) by DARCOM in conjunction with TRADOC proponent.

NMIL will be prepared and distributed 6 months prior to scheduled delivery of the system/equipment.

NMIT will brief major commanders on new systems/equipment at the time of, or prior to, delivery of the system/equipment.

(6) New equipment training teams (NETT). Joint DARCOM/TRADOC participation. Includes new operational training as appropriate.

Arrive with, or immediately after, delivery of the system/equipment.

- b. Notes.
- (1) Milestone on which to base the backward planning sequence -- NET date.
- (2) Materiel development commands and agencies develop, publish, and distribute NETP for each system/equipment for which they are responsible. The NETP provides personnel and training milestones keyed to major point for each system/equipment.

- (3) NET is designed to provide training on operation, maintenance, gunnery and operational employment of a new system. It prepares commanders, supervisors, trainers, users and maintainers of new systems to integrate them effectively into unit operations. TRADOC system proponents must coordinate closely with gaining MACOM during NET planning to insure that NET meets user needs.
 - (4) References. AR 350-35, New Equipment Training.

C-16. Collective Training (CT) and Army Training and Evaluation Program (ARTEP).

a. Development milestones

Phasing

(1) Conduct (or review existing) collective FEA as a basis for development of new or revised CT/ARTEP. This is accomplished by—

Input to LOA and RFP.

- (a) The review and/or revision of unit missions considering developing systems effects.
- (b) Identifing combat critical tasks and functions to include associated support requirements.
- 2) Prepare draft CT concept (what training for whom, when, where and how).

Input for OICTP.

- (3) Prepare CT package for combat critical collective tasks for OT I:
- Input to OT I training test support package.

- (a) CT concept ((2) above)
- (b) Design CT package to include mission, task hierarchy (training sequence which relates tasks to each other and to the mission).
- (c) Design selected training and evaluation outlines.
- (d) Develop collective/individual task integration matrix.
- (e) Design evaluation plan for combat critical collective tasks and supporting material, e.g., devices, ETM, simulations, ranges, ammunition and ranges.
 - (4) Evaluate OT I CT package.

During OT I.

(5) Conduct comprehensive mission and collective task analysis considering results of OT I and the implications of employing the system within the unit(s) on the battlefield. Revise doctrine, TOE, and integration matrix as appropriate.

Immediately after OT I.

(6) Expand and refine unit CT and CT support requirements; expand and refine CT concept for institutional and unit training to include training for trainers and training managers; consider OPFOR, battle simulation and command and staff training.

Input to ROC, LR and ICTP.

(7) Prepare detailed CT package for OT II (and IOC). Expand and refine items listed in subparagraph (3) above considering ultimate requirement for a total unit CT package. Prepare draft test edition ARTEP. Select missions to be evaluated during OT II. (NOTE: These missions must parallel mission profile in ROC). Prepare training and evaluation support materials.

Input to OT II training test support package.

(8) Evaluate/validate OT II CT package.

During OT II.

(9) Prepare, produce and distribute test edition ARTEP and CT support package.

FUE minus 30 days.

(10) Evaluate test edition ARTEP and CT support materials.

FUE plus 12 months.

(11) Prepare coordinating draft ARTEP.

FUE plus 18-24 months.

- b. Notes.
- (1) Milestone on which to base the backward planning sequence -- FUE.
- (2) Preparation and staffing of test edition ARTEP will be in accordance with TRADOC Reg 310-2.
- (3) Preparation, staffing, publishing and distribution of coordinating draft ARTEP and subsequent DA print ARTEP will be in accordance with the above regulation and ATLP procedures.

C-17. Cost and training effectiveness analysis (CTEA).

a. Development milestones

- (1) Develop a CTEA, as complete as possible, for input to COEA. Use mission profile, soldier profile (note (3) below), logistical operational and personnel concepts, available baseline data, issues, etc., available at time of development.
- (2) Provide training alternatives, issues, and criteria developed by the CTEA to contractors and MOS analysts for detailed conduct of FEA.
- (3) Update CTEA based on results of DT/OT I.
- (4) Provide training issues and best training subsystems for DT/OT II as result of update of CTEA and other CEP/FDTE testing.
- (5) Update CTEA as appropriate as a result of DT/OT II.
- (6) Finalize CTEA as result of any additional FOE/FDTE. Required if not accomplished to support milestone III.

Phasing

During concept exploration phase of system development. Must input to COEA to support concept formulation package (CFP), supporting LOA approval of Milestone I (ASARC/DSARC I).

After LOA approval.

During demonstration and validation phase of system development. Must input to COEA to support CFP supporting ROC approval at Milestone II (ASARC/DSARC II).

To meet test agency requirement for training test support package:

- OTEA at test start date minus 180 days.
- Test board at test start date minus test player training time plus 14 days.

During full scale development phase of system development. Must input to COEA to support production decision at Milestone III ASARC/DSARC III).

During production and deployment phase of system development.

- b. Notes.
- (1) Milestone date on which to base backward planning sequence -- system development milestones (I, II, III).
- (2) A CTEA is required for all developing systems. As shown above, it is an evolutionary, continuing process.
- (3) Generically similar systems are basically the same as the systems they are to replace. The tasks currently required of a MOS will not be drastically altered due to the introduction of a replacement item of equipment. What should change are the conditions and standards associated with that task. Using this data and a target population or soldier profile which would include such item demographics, mental ability, past and current SQT results, tactical employment and leadership attitudes and perceptions, a CTEA can be conducted that is as detailed as our current COEA at this stage in the development process.
 - (4) References.
 - (a) TRADOC Reg 350-4, Evaluation.
 - (b) TRADOC Pam 71-XX, TBP, Training Effectiveness Analysis.
- C-18. A blank scheduling format for local use and reproduction is at figure C-1 (management information requirements are exempt from form control by AR 335-15, para 7-2j).
- C-19. A training subsystem summary sheet is at figure C-2. This summary will be submitted with the ICTP as a separate appendix preceding the product oriented schedule appendixes.

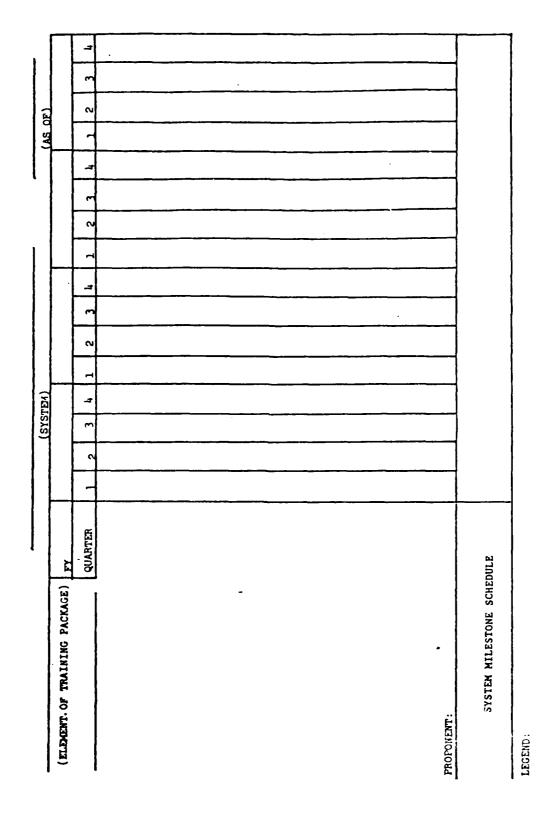


Figure C-1. Scheduling format.

TRAINING SUBSYSTEM SUMMARY SHEET

			DATE)		
1.	System		Brief Description:		
		_			
2.	System Data:				
	DA category	•	TSM	Yes	No
	ROC/LR approval	•	TQQPRI	Yes	No
	OT II	_·	FQQPRI	Yes	No
	Production decision	 •	TBOIP	Yes	No
	FUE (Unclass)	·	FBOIP	Yes	No
TRADOC Proponents:					
	Primary				
	Supporting				
	Supporting (identify with the particular MOS and specialties)				
DARCOM proponent:					
MOS(s) and specialties effected:					
Indicate ASI (where applicable):					
3.	Product development:	Des to the	1 4 49 - 5 49 4 5 4 5		
	Product	Projected Availability or Completion Date		Remarks	
	Technical Manuals				
	SM/TG/JB				
	SQT				
	ARTEP				

Figure C-2. Training subsystem summary sheet.

```
Resident training programs
     Operator
     Organizational Maintainer(s)
     DS/GS/Repairer(s)
     Trainer/Manager
   Resident training equipment
   Devices
   Training literature
   TEC
   Audiovisual
   ACCP
   Facilities/ranges
   Ammunition
   NET
4. Primary TRADOC proponent resource requirement summary:
                                          FY FY FY FY
Manpower
 Military
   OFF
    EM
  Civilian
OMA funds
  Civilian pay
  TDY
  Other (contracts, renovation, etc.)
```

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Figure C-2. Training subsystem summary sheet (continued)

TRADOC Reg 351-9

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5. Supporting TRADOC resource requirement summary:

FY FY FY FY

Manpower

Military

Civilian

OMA funds

Civilian pay

TDY

Other (contracts, renovation, etc.)

NOTE: Data should be projected as far in the outyears as practical. Must correspond to PPBS and TRM inputs. Other resource requirements, such as MCA, ASF, etc., should be in accordance with other respective directives.

Figure C-2. Training subsystem summary sheet (continued)

APPENDIX B
WORKSHEET FOR RECORDING SCHEDULE CHANGES

ICTP Job Description Report Worksheet

```
Job #1, CFEA FOR ARTEP
                                         **** CRITICAL ****
     Duration = 2 Weeks
                                       Earliest start = 1/ 1/82
   Work Completed = 0 Weeks
                                     Earliest finish = 1/15/82
                                        Latest start = 1/1/82
 On critical path = Yes
                                        Latest finish = 1/15/82
      Slack time = none
    Prerequisites = none
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #2, DRAFT CT CONCEPT
                                         **** CRITICAL ****
------
         Duration = 1 Week
                                       Earliest start = 1/15/82
   Work Completed = 0 Weeks
                                       Earliest finish = 1/22/82
 On critical path = Yes
                                          Latest start = 1/15/82
       Slack time = none
                                         Latest finish = 1/22/82
    Prerequisites = Job #1, CFEA FOR ARTEP
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #3, IDENT I&C TASKS FOR UNIT TRNG
------
                                        Earliest start = 1/ 1/82
         Duration = 1 Week
                                       Earliest finish = 1/8/82
   Work Completed = 0 Weeks
 On critical path = No
                                        Latest start = 1/15/82
      Slack time = 2 Weeks
                                        Latest finish = 1/22/82
    Prerequisites = none
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = 60
Job #4, DEVELOP PRELIMINARY CTEA
         Duration = 2 Weeks
                                       Earliest start = 1/ 1/82
   Work Completed = 0 Weeks
                                      Earliest finish = 1/15/82
  On critical path = No
                                         Latest start = 1/8/82
       Slack time = 1 Week
                                        Latest finish = 1/22/82
    Prerequisites = none
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #5, LOA/DICTP
                                         ***** CRITICAL ****
         Duration = 3 Weeks
                                       Earliest start = 1/22/82
   Work Completed = 0 Weeks
                                       Earliest finish = 2/12/82
  On critical path = Yes
                                         Latest start = 1/22/82
       Slack time = none
                                         Latest finish = 2/12/82
    Prerequisites = Job #2, DRAFT CT CONCEPT
                   Job #3, IDENT IAC TASKS FOR UNIT TRNG
```

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Job #4, DEVELOP PRELIMINARY CTEA
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job $6. DEV TRNG ALTER BASED ON CTEA
_____
                                       Earliest start = 2/12/82
        Duration = 1 Week
   Work Completed = 0 Weeks
                                     Earliest finish = 2/19/82
                                        Latest start = 3/26/82
      ritical path = No
Slack time = 6 Weeks
 On critical path = No
                                        Latest finish = 4/ 2/82
    Prerequisites = Job #4, DEVELOP PRELIMINARY CTEA
                   Job #5, LOA/OICTP
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #7, DRAFT NETP
                                       Earliest start = 1/ 1/82
       Duration = 1 Week
                                      Earliest finish = 1/8/82
   Work Completed = 0 Weeks
                                         Latest start = 2/5/82
  On critical path = No
                                       Latest finish = 2/12/82
      Slack time = 5 Weeks
    Prerequisites = none
   Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
                                         ***** CRITICAL ****
Job #8, PROGRAM MANAGEMENT PLAN (PMP)
                                        Earliest start = 2/12/82
       Duration = 3 Weeks
                                       Earliest finish = 3/5/82
   Work Completed = 0 Weeks
                                         Latest start = 2/12/82
  On critical path = Yes
                                        Latest finish = 3/5/82
       Slack time = none
     Prerequisites = Job #5, LOA/OICTP
                   Job #7, DRAFT NETP
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #9, REVIEW DRAFT NETP
                                       Earliest start = 1/8/82
        Duration = 1 Week
                                      Earliest finish = 1/15/82
    Work Completed = 0 Weeks
                                         Latest start = 2/26/82
  On critical path = No
                                        Latest finish = 3/ 5/82
      Slack time = 7 Weeks
     Prerequisites = Job #7, DRAFT NETP
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
                                         ***** CRITICAL ****
Job #10, ASARC/DSARC 1
         Duration = 1 Week
                                       Earliest start = 3/5/82
    Work Completed = 0 Weeks
                                      Earliest finish = 3/12/82
  On critical path = es
                                         Latest start = 3/ 5/82
       Slack time = none
                                         Latest finish = 3/12/82
    Pretequisites = Job #8, PROGRAM MANAGEMENT PLAN (PMP)
                   Job #9, REVIEW DRAFT NETP
   Manpower skills = none
```

Total effort = none

```
Prerequisites = Job #13, RFP/CONTRACT AWARD (AD)
                  Job #6. DEV TRNG ALTER BASED ON CTEA
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job $16, REVIEW FEA FOR AMMO
_____
                                      Earliest start = 5/14/82
        Duration = 1 Week
                                     Earliest finish = 5/21/82
   Work Completed = 0 Weeks
                                       Latest start = 7/ 9/82
 On critical path = No
      Slack time = 8 Weeks
                                       Latest finish = 7/16/82
    Prerequisites = Job #15, CONTRACTOR LSA/FEA
  Manpower skills = none
     Total effort = nene
    Manpower cost = $0.0
      Direct cost = $0
Job #17. ANALYSIS OF ITPP
-----
                                      Earliest start = 5/14/82
        Duration = 1 Week
                                     Earliest finish = 5/21/82
   Work Completed = 0 Weeks
                                        Latest start = 7/ 9/82
  On critical path = No
                                        Latest finish = 7/16/82
      Slack time = 8 Weeks
    Prerequisites = Job #11, INDVDL TRNG PLN PRPOSAL (ITPP)
                   Job #15, CONTRACTOR LSA/FEA
  Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #18, REVIEW FEA FOR TEC
                                      Earliest start = 5/14/82
       Duration = 1 Week
                                     Earliest finish = 5/21/82
   Work Completed = 0 Weeks
                                        Latest start = 7/ 9/82
  On critical path = No
                                        Latest finish = 7/16/82
      Slack time = 8 Weeks
     Prerequisites = Job #15, CONTRACTOR LSA/FEA
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #19, REVIEW FEA FOR TRNG DEVCES(TD)
 _____
                                  Earliest start = 5/14/82
Earliest finish = 5/21/82
         Duration = 1 Week
   Work Completed = 0 Weeks
                                        Latest start = 7/ 2/82
  On critical path = No
      Slack time = 7 Weeks
                                        Latest finish = 7/ 9/82
     Prerequisites = Job #15, CONTRACTOR LSA/FEA
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
 Job #20, REVIEW FEA/IDENT ATLP REQUIR.
 ------
         Duration = 1 Week Earliest scale = 5/21/82
   Work Completed = 0 Weeks
      ritical path = No Latest start = 7/9/82
Slack time = 8 Weeks Latest finish = 7/16/82
  On critical path = No
     Prerequisites = Job #15, CONTRACTOR LSA/FEA
   Manpower skills = none
                                  B-3
```

Total effort = none Manpower cost = \$0.0

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Job #21, REVIEW FEA FOR SM, TG, & JB
     Duration = 2 Weeks
                                    Earliest start = 5/14/82
  Work Completed = 0 Weeks
                                   Earliest finish = 5/28/82
 On critical path = No
                                     Latest start = 7/ 2/82
     Slack time = 7 Weeks
                                     Latest finish = 7/16/82
   Prerequisites = Job #15, CONTRACTOR LSA/FEA
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #22, REVIEW FEA FOR SQT
       Duration = 1 Week
                                    Earliest start = 5/14/82
                                  Earliest finish = 5/21/82
  Work Completed = 0 Weeks
                                      Latest start = 7/ 9/82
 On critical path = No
                                     Latest finish = 7/16/82
      Slack time = 8 Weeks
   Prerequisites = Job #15, CONTRACTOR LSA/FEA
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #23, REVIEW FEA FOR DAAPP
       Duration = 1 Week
                                    Earliest start = 5/14/82
  Work Completed = 0 Weeks
                                   Earliest finish = 5/21/82
                           Latest start = 7/ 9/82
 On critical path = No
      Slack time = 8 Weeks
    Prerequisites = Job #15, CONTRACTOR LSA/FEA
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #24, REVIEW FEA FOR FACILITIES
                                   **** CRITICAL ****
------
        Duration = 1 Week
                                    Earliest start = 5/14/82
   Work Completed = 0 Weeks
                                   Earliest finish = 5/21/82
 Latest finish = 5/21/82
    Prerequisites = Job #15, CONTRACTOR LSA/FEA
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = 10
Job #25, PREPARE CT PACKAGE
        Duration = 1 Week
                                    Earliest start = 5/14/82
   Work Completed = 0 Weeks
                                   Earliest finish = 5/21/82
                                      Latest start = 7/ 9/82
 On critical path = No
     Slack time = 8 Weeks
                                      Latest finish = 7/16/82
   Prerequisites = Job #2, DRAFT CT CONCEPT
                  Job #15, CONTRACTOR LSA/FEA
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #26, TRNG DEVICE (TD) LOA DEVELOP.
```

Duration = 1 Week B-4

Earliest start = 5/21/82

Earliest finish = 3/28/82 Work Completed = 0 Weeks On critical path = No Latest start = 7/ 9/82 Latest finish = 7/16/82 Slack time = 7 Weeks Prerequisites = Job #19, REVIEW FEA FOR TRNG DEVCES(TD) Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #27, SUBMIT CONSTRCTN REG TO MACOM **** CRITICAL **** Duration = 1 Week Earliest start = 5/21/82 Work Completed = 0 Weeks Earliest finish = 5/28/82 On critical path = Yes Latest start = 5/21/82 Slack time = none Latest finish = 5/28/82 Prerequisites = Job #24, REVIEW FEA FOR FACILITIES Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #28, TASK DEH TO DEV CONSTR REQ ************************ Duration = 1 Week Earliest start = 5/28/82 Work Completed = 0 Weeks
On critical path = No
Slack time = 10 Weeks Earliest finish = 6/4/82 Latest start = 8/6/82 Latest finish = 8/13/82 Prerequisites = Job #27, SUBMIT CONSTRCTN REQ TO MACOM Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #29, CONDUCT OT 1 -----Earliest start = 5/28/82 Duration = 6 Weeks Earliest finish = 7/ 9/82 Latest start = 7/16/82 Work Completed = 0 Weeks On critical path = No Slack time = 7 Weeks Latest finish = 8/27/82Prerequisites = Job #14, SOW FOR SPA PDEP Job #15, CONTRACTOR LSA/FEA Job #16, REVIEW FEA FOR AMMO Job #18, REVIEW FEA FOR TEC Job #20, REVIEW FEA/IDENT ATLP REQUIR. Job #23, REVIEW FEA FOR DAAPP Job #25, PREPARE CT PACKAGE Job #26, TRNG DEVICE (TD) LOA DEVELOP Job #123, BETWEEN FEA (15) & OT 1 (29) Manpower skills = none Total effort = none B-5 Manpower cost = \$0 0

Direct cost = 50

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Job #30, VALIDATE AMMO REG AT OT 1
-----
                                        Earliest start = 6/4/82
        Duration = 2 Weeks
   Work Completed = 0 Weeks
                                      Earliest finish = 6/18/82
                                         Latest start = 8/13/82
 On critical path = No
       Slack time = 10 Weeks
                                         Latest finish = 8/27/82
    Prerequisites = Job #14, SOW FOR SPA PDEP
                    Job #15, CONTRACTOR LSA/FEA
                    Job #16, REVIEW FEA FOR AMMO
                    Job #18, REVIEW FEA FOR TEC
                    Job #20, REVIEW FEA/IDENT ATLP REQUIR.
                    Job #23, REVIEW FEA FOR DAAPP
                    Job #25, PREPARE CT PACKAGE
                    Job #26, TRNG DEVICE (TD) LOA DEVELOP.
                    Job #28, TASK DEH TO DEV CONSTR REG
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #31, VALIDATE PDEP (SPAS) AT OT 1
-----
        Duration = 2 Weeks
                                        Earliest start = 6/4/82
                                      Earliest finish = 6/18/82
    Work Completed = 0 Weeks
                                          Latest start = 8/13/82
  On critical path = No
        Slack time = 10 Weeks
                                         Latest finish = 8/27/82
     Prerequisites = Job #16, REVIEW FEA FOR AMMO
                    Job #14, SOW FOR SPA PDEP
                    Job #18, REVIEW FEA FOR TEC
                    Job #15, CONTRACTOR LSA/FEA
                    Job #25, PREPARE CT PACKAGE
                    Job #26, TRNG DEVICE (TD) LOA DEVELOP.
                    Job #20, REVIEW FEA/IDENT ATLP REQUIR.
                    Job #23, REVIEW FEA FOR DAAPP
                    Job #28, TASK DEH TO DEV CONSTR REQ
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
       Direct cost = $0
Job #32, VALIDATE TEC REQ AT OT 1
----
         Duration = 2 Weeks
                                        Earliest start = 6/ 4/82
                                       Earliest finish = 6/18/82
    Work Completed = 0 Weeks
      Slack time = 10 Weeks
rerequisites = '-'
                                          Latest start = 8/13/82
  On critical path = No
                                          Latest finish = 8/27/82
     Prerequisites = Job #16, REVIEW FEA FOR AMMO
                    Job #14, SOW FOR SPA PDEP
                    Job #18, REVIEW FEA FOR TEC
                    Job #15, CONTRACTOR LSA/FEA
                    Job 025, PREPARE CT PACKAGE
                    Job #26, TRNG DEVICE (TD) LOA DEVELOP.
                    Job #20, REVIEW FEA/IDENT ATLP REQUIR
                    Job #23, REVIEW FEA FOR DAAPP
                    Job #28, TASK DEH TO DEV CONSTR REQ
   Manpower skills = none
      Total effort = none
     Manpower cost = $0.0
       Direct cost = $0
Job #23, EVALUATE OT PACKAGE AT OT 1
         Duration = 2 Weeks
                                        Earliest start = 6/4/82
  Work Completed = 0 Weeks B=6 Earliest finish = 6/18/82 On critical path = No Latest start = 8/13/82
```

Latest finish = 8/27/82

Sisck time = 10 Weeks

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Prerequisites = Job #16, REVIEW FEA FOR AMMO
                   Job #14, SOW FOR SPA PDEP
                   Job #18, REVIEW FEX FOR TEC
                   Job #15, CONTRACTOR LSA/FEA
                   Job #25, PREPARE CT PACKAGE
                   Job #26, TRNG DEVICE (TD) LOA DEVELOP.
                   Job #20, REVIEW FEA/IDENT ATLP REQUIR.
                   Job #23, REVIEW FEA FOR DAAPP
                   Job #28, TASK DEN TO DEV CONSTR REQ
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #34, VALIDATE TD CONCEPT AT OT 1
 .......
                                       Earliest start = 6/ 4/82
         Duration = 2 Weeks
                                      Earliest finish = 6/18/82
   Work Completed = 0 Weeks
 On critical path = No
                                         Latest start = 8/13/82
                                         Latest finish = 8/27/82
       Slack time = 10 Veeks
    Prerequisites = Job $16, REVIEW FEA FOR AMMO
                   Job #14, SOW FOR SPA PDEP
                   Job #18, REVIEW FEA FOR TEC
                    Job #15, CONTRACTOR LSA/FEA
                    Job #25, PREPARE CT PACKAGE
                    Job #26, TRNG DEVICE (TD) LOA DEVELOF.
                    Job #20, REVIEW FEA/IDENT ATLP REQUIR.
                    Job #23, REVIEW FEA FOR DAAPP
                    Job #28, TASK DEH TO DEV CONSTR REQ
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = 10
Job #35, VALIDATE ATLP CHANGES AT OT 1
_____
                                        Earliest start = 6/4/82
         Duration = 2 Weeks
                                      Earliest finish = 6/18/82
   Work Completed = 0 Weeks
                                         Latest start = 8/13/82
  On critical path = No
                                         Latest finish = 8/27/82
      Slack time = 10 Weeks
     Prerequisites = Job #16, REVIEW FEA FOR AMMO
                    Job 414, SOW FOR SPA PDEP
                    Job #18, REVIEW FEA FOR TEC
                    Job #15, CONTRACTOR LSA/FEA
                    Job #25, PREPARE CT PACKAGE
                    Job #26, TRNG DEVICE (TD) LOA DEVELOP.
                    Job #20, REVIEW FEA/IDENT ATLP REQUIR.
                    Job #23, REVIEW FEA FOR DAAPP
                    Job #28, TASK DEH TO DEV CONSTR REQ
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #36, VALIDATE DAAPP REQ AT OT 1
-----
         Duration = 2 Weeks
                                       Earliest start = 6/4/82
                                      Earliest finish = 6/18/82
   Work Completed = 0 Weeks
                                         Latest start = 8/13/82
  On critical path = No
       Slack time = 10 Weeks
                                         Latest finish = 8/2?/82
     Prerequisites = Job #14, SOW FOR SPA PDEP
                    Job #15, CONTRACTOR LSA/FEA
                    Job #16, REVIEW FEA FOR AMMO
                    Job #18. REVIEW FEA FOR TEC
                    Job #20, REVIEW FEA/IDENT ATLP REQUIR.
                    Job #23, REVIEW FEA FOR DAAPP
```

Job #25, PREPARE CT PACKAGE Job #26, TRNG DEVICE (TD) LOA DEVELOP. Job #28, TASK DEH TO DEV CONSTR REQ

Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0

Job #37, VALIDATE CONSTR REG AT OT 1

Earliest start = 6/4/82 Duration = 2 Weeks Earliest finish = 6/18/82 Work Completed = 0 Weeks Latest start = 8/13/82 On critical path = No Latest finish = 8/27/82 Slack time = 10 Weeks Prerequisites = Job #14, SOW FOR SPA PDEP Job #15, CONTRACTOR LSA/FEA Job 016, REVIEW FEA FOR AMMO Job #18, REVIEW FEA FOR TEC Job #20, REVIEW FEA/IDENT ATLP REQUIR. Job #23, REVIEW FEA FOR DAAPP Job #25, PREPARE CT PACKAGE Job #26, TRNG DEVICE (TD) LOA DEVELOP. Job #28, TASK DEH TO DEV CONSTR REG Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0

Job #38, INCLUDE AMMO REQ IN ROC

Earliest start = 7/ 9/82 Duration = 1 Week Earliest finish = 7/16/82 Work Completed = 0 Weeks Latest start = 9/10/82 On critical path = No Slack time = 9 Weeks Latest finish = 9/17/82 Prerequisites = Job #30, VALIDATE AMMO REQ AT OT 1 Job #29, CONDUCT OT 1

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Manpower skills = none Total effort = none Manpower cost = \$0 0 Direct cost = 50

Job #39, SUBMIT TEC REG TO ATSC

```
Earliest start = 7/ 9/82
        Duration = 1 Veek
                                     Earliest finish = 7/16/82
  Work Completed = 0 Weeks
                                       Latest start = 9/ 3/82
 On critical path = No
                                       Latest finish = 9/10/82
      Slack time = 8 Weeks
    Prerequisites = Job #32, VALIDATE TEC REQ AT OT 1
                  Job #29, CONDUCT OT 1
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
    Direct cost = $0
Job #40, STAFF PLANNER COURSE FOR NET
------
                                      Earliest start = 7/ 9/82
        Duration = 2 Weeks
                                    Earliest finish = 7/23/82
   Work Completed = 0 Weeks
                                      Latest start = 1/21/83
 On critical path = No
                                       Latest finish = 2/4/83
      Slack time = 28 Weeks
    Prerequisites = Job #9, REVIEW DRAFT NETP
                  Job #29, CONDUCT OT 1
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #41, MISSION & COLLECTIVE TASK ANAL
                                     Earliest start = 7/ 9/82
        Duration = 2 Weeks
                                    Earliest finish = 7/23/82
   Work Completed = 0 Veeks
                                       Latest start = 8/27/82
     Slack time = 7 Weeks
  On critical path = No
                                       Latest finish = 9/10/82
    Prerequisites = Job #33, EVALUATE CT PACKAGE AT OT 1
                   Job #29, CONDUCT OT 1
                   Job #124, BETWEEN OT 1 (29) & M&CTA (41)
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #42, UPDATE CTEA (DVAL PHASE)
......
   Earliest start = 7/ 9/82
                                     Earliest finish = 7/23/82
  On critical path = No
                                       Latest start = 2/18/83
      Slack time = 32 Weeks
                                       Latest finish = 3/4/83
    Prerequisites = Job #6, DEV TRNG ALTER BASED ON CTEA
                  Job #29, CONDUCT OT 1
   Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #43, SUBMIT DAAPP REQ TO ATSC
------
                                      Earliest start # 7/ 9/82
        Duration = 1 Week
   Work Completed = 0 Weeks
                                    Earliest finish = 7/16/82
                                       Latest start = 1/28/83
  On critical path = No
      Slack time = 29 Weeks
                                       Latest finish = 2/4/83
    Prerequisites = Job #34, VALIDATE DAAPP REQ AT OT 1
                  Job #29, CONDUCT OT 1
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
     Direct cost = $0
                               B-c
```

Job #44, REFINE CT & CT SUPPORT REQ

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```
Duration = 1 Week
                                        Earliest start = 7/23/82
   Work Completed = 0 Weeks
                                       Earliest finish = 7/30/82
 On critical path = No Latest start = 9/10/82 Slack time = 7 Weeks Latest finish = 9/17/82
    Prerequisites = Job #41, MISSION & COLLECTIVE TASK ANAL
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #45, ROC
------
         Duration = 1 Week
                                        Earliest start = 7/30/82
                                     Earliest finish = 8/6/82
   Work Completed = 0 Weeks
                                          Latest start = 9/17/82
 On critical path = No
      Slack time = 7 Weeks
                                          Latest finish = 9/24/82
     Prerequisites = Job #29, CONDUCT OT 1
                    Job #34, VALIDATE TD CONCEPT AT OT 1
                    Job #38, INCLUDE AMMO REQ IN ROC
                    Job #44, REFINE CT & CT SUPPORT REQ
  Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #46, SUBMIT FBIOP (AMMO) FOR CTA
        Duration = 1 Week
                                        Earliest start = 7/30/60
   Work Completed = 0 Weeks
                                      Earliest finish = 8/6/82
  On critical path = No
                                          Latest start = 12/24/82
       Slack time = 21 Weeks
                                         Latest finish = 12/31/82
     Prerequisites = Job #24, REVIEW FEA FOR FACILITIES
                    Job #29, CONDUCT OT 1
                    Job #30, VALIDATE AMMO REQ AT OT 1
                    Job #44, REFINE CT & CT SUPPORT REQ
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #47, TDR/LR DEVELOPMENT
-----
      Duration = 1 Week
                                        Earliest start = 7/30/82
    Work Completed = 0 Weeks
                                       Earliest finish = 8/6/82
  On critical path = No
                                          Latest start = 12/24/82
       Slack time = 21 Weeks
                                          Latest finish = 12/31/82
     Prerequisites = Job #29, CONDUCT OT 1
                    Job #34, VALIDATE TD CONCEPT AT OT 1
                    Job #38, INCLUDE AMMO REQ IN ROC
                    Job #44, REFINE CT & CT SUPPORT REQ
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
       Direct cost = $0
Job #48, DA APPROVAL OF DAAPP REQ
         Duration = 1 Week
                                         Earliest start = 7/16/82
  Work Completed = 0 Weeks
On critical path = No
Slack time = 29 Weeks
                                       Earliest finish = 7/23/82
                                         Latest start = 2/4/83
                                          Latest finish = 2/11/83
     Prerequisites = Job #43, SUBMIT DAAPP REQ TO ATSC
   Manpower skills = none
                                 B − 1.0
     Total effort = none
```

Manpower cost = \$0 0

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Manpower skills = none

Total effort = none Manpower cost = \$0.0

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Job #49, ASARC/DSARC 2
    Duration = 1 Week
                                        Earliest start = 8/6/82
 Work Completed = 0 Weeks
On critical path = No
                                      Earliest finish = 8/13/82
                                         Latest start = 2/11/83
                                        Latest finish = 2/18/83
      Slack time = 27 Weeks
    Prerequisites = Job #45, ROC
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #50, KEY INSTRUCTOR/PERSONNEL TRNG
  Duration = 1 Week
Work Completed = 0 Weeks
                                        Earliest start = 7/23/82
                                      Earliest finish = 7/30/82
                                          Latest start = 2/ 4/83
 On critical path = No
      Slack time = 28 Weeks
                                         Latest finish = 2/11/83
    Prerequisites = Job #40, STAFF PLANNER COURSE FOR NET
   Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #51, REVIEW/REVISE TEC REG
        Duration = 1 Week
                                        Earliest start = 7/16/82
                                      Earliest start = 7/16/82
Earliest finish = 7/23/82
   Work Completed = 0 Weeks
  On critical path = No
                                          Latest start = 9/17/82
                                          Latest finish = 9/24/82
       Slack time = 9 Weeks
     Prerequisites = Job #39, SUBMIT TEC REQ TO ATSC
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #52, INPUT TO WARS (AMMO)
-----
         Duration = 1 Week
                                        Earliest start = 9/6/82
                                      Earliest start = 8/6/82
Earliest finish = 9/13/82
   Work Completed = 0 Weeks
  On critical path = No
                                        Latest start = 12 1/82
                                         Latest finish = 1/ 7/83
      Slack time = 21 Weeks
     Prerequisites = Job #45, ROC
                    Job #46, SUBMIT FBIOP (AMMO) FOR CTA
                    Job #47, TDR/LR DEVELOPMENT
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Job #53, PREPARE SOW FOR DEP (SPAS)
      Duration = 1 Week
   Work Completed = 0 Weeks
 On critical path = No
     Slack time = 27 Weeks
```

Latest start = 2/18/83Latest finish = 2/25/83Prerequisites = Job #31, VALIDATE PDEP (SPAS) AT OT 1

Earliest start = 8/13/82

Earliest finish = 8/20/82

Job #49, ASARC/DSARC 2

Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0

Job #54, PREPARE TEC DEVELOP. CONTRACT

Earliest start = 8/ 6/82 Duration = 1 Week Earliest finish = 8/13/82 Work Completed = 0 Weeks Latest start = 9/24/82 On critical path = No Latest finish = 10/ 1/82 Slack time = 7 Weeks

Prerequisites = Job #51, REVIEW/REVISE TEC REQ

Job #45, ROC

Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = 50

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Job #55, NMIL & NMIT FOR NET ------

Earliest start = 8/6/82 Duration = 1 Week Earliest finish = 8/13/82 Work Completed = 0 Weeks On critical path = No Slack time = 27 Weeks Latest start = 2/11/83 Latest finish = 2/18/83

Prerequisites = Job #50, KEY INSTRUCTOR/PERSONNEL TRNG Job #45, ROC

Manpower skills = none Total effort = none

Manpower cost = \$0.0 Direct cost = \$0

Job \$56, INITIAL PRODUCTION OF DAAPP

_____ Duration = 1 Week Earliest start = 7/23/82 Earliest finish = 7/30/82 Work Completed = 0 Weeks Latest start = 2/11/83 On critical path = No Latest finish = 2/18/83 Slack time = 29 Weeks

Prerequisites = Job 948, DA APPROVAL OF DAAPP REQ

Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0

Job #57, DEVELOP AMMO

Duration = 2 Weeks
Work Completed = 0 Weeks Earliest start = 8/13/82 Earliest finish = 8/27/82 Latest start = 1/ 7/83 On critical path = No Latest finish = 1/21/83 Slack time = 21 Weeks

Prerequisites = Job #52, INPUT TO WARS (AMMO)

Manpower skills = none Total effort = none Manpower cost = \$0.0

B - 1.2Direct cost = 10

...----Earliest start = 8/13/81 Duration = 1 Week Work Completed = 0 Weeks Earliest finish = 8/20/82 Slack time = 26 Weeks Latest start = 2/11/83 On critical path = No Prerequisites = Job #54, PREPARE TEC DEVELOP. CONTRACT Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job 059, DEVELOP UNIT TRNG STRATEGY ------Earliest start = 8/13/82 Duration = 2 Weeks Earliest finish = 8/27/82 Work Completed = 0 Weeks Latest start = 2/25/83 On critical path = No Latest finish = 3/11/83 Prerequisites = Job #3, IDENT I&C TASKS FOR UNIT TRNG Job #49, ASARC/DSARC 2 Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = 10 Job \$60, SUBMT SPPT (FAC.) REQ TO MACOM Duration = 1 Week Earliest start = 6/18/82 Work Completed = 0 Weeks Earliest finish = 4/25/82 On critical path = No Latest start = 9/24/82 Slack time = 14 Weeks Latest finish = 10/ 1/82 Prerequisites = Job #37, VALIDATE CONSTR REG AT OT 1 Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #61, PRODUCE AMMO FOR NET Duration = 4 Weeks Earliest start = 8/27/82 Earliest finish = 9/24/82 Work Completed = 0 Weeks Latest start = 1/21/83 On critical path = No Latest finish = 2/18/83 Slack time = 21 Weeks Prerequisites = Job #57, DEVELOP AMMO Job #45, ROC Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #62, DEVELOP/VALIDATE DEP (SPAS) ----------Earliest start = 8/20/82 Duration = 2 Weeks Work Completed = 0 Weeks Earliest finish = 9/ 3/82 Latest start = 2/25/83 On critical path = No Slack time = 27 Weeks Latest finish = 3/11/83 Prerequisites = Job #53, PREPARE SOW FOR DEP (SPAS) Job #45, ROC Manpower skills = none Total effort = none

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Manpower cost = \$0.0 Direct cost = \$0

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Job #63, PREPARE DRAFT CT (ARTEP) PACK.
-----
         Duration = 3 Weeks
                                       Earliest start = 8/6/82
   Work Completed = 0 Weeks
                                     Earliest finish = 8/27/82
                                       Latest start = 2/18/83
  On critical path = No
      Slack time = 28 Weeks
                                       Latest finish = 3/11/83
    Prerequisites = Job #44, REFINE CT & CT SUPPORT REQ
                  Job #45, ROC
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #64, IDEN TRNG ISSUES FOR OT 2/CTEA
       Duration = 1 Week
                                       Earliest start = 8/6/82
   Work Completed = 0 Weeks
                                      Earliest finish = 8/13/82
  On critical path = No
                                        Latest start = 3/4/83
      Slack time = 30 Weeks
                                        Latest finish = 3/11/83
    Prerequisites = Job #42, UPDATE CTEA (DVAL PHASE)
                  Job #45, ROC
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = 10
Job #65, NET START/NETT
   Latest start = 2/18/83
  On critical path = No
      Slack time = 7 Weeks
                                        Latest finish = 3/11/83
     Prerequisites = Job #55, NHIL & NHIT FOR NET
                   Job #56, INITIAL PRODUCTION OF DAAPP
                   Job 058, INITIATE TEC DEVELOPMENT
                   Job #61, PRODUCE AMMO FOR NET
                   Job #127, 23 MONTHS BETWEEN #39 AND #65
                   Job #128, 20 MONTHS BETWEEN #54 AND #65
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #66, DAAPP DISTRIBUTION COMPLETE
         Duration = 1 Week
                                      Earliest start = 9/24/82
   Work Completed = 0 Weeks
                                     Earliest finish = 10/ 1/82
  On critical path = No
                                        Latest start = 4/ 1/83
      Slack time = 27 Weeks
                                       Latest finish = 4/8/83
     Prerequisites = Job #39, SUBMIT TEC REG TO ATSC
                   Job #55, NMIL & NMIT FOR NET
                   Job $56, INITIAL PRODUCTION OF DAAPP
                   Job #58, INITIATE TEC DEVELOPMENT
                   Job #61, PRODUCE AMMO FOR NET
   Manpower skills * none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = 50
Job #67, CAD FOR ITP
                                B = \pm \epsilon
```

Earliest start = 8/13/82

Duration = 1 Week

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Earliest finish = 8/20/82
   Work Completed = 0 Veeks
 On critical path = No
                                        Latest start = 3/11/83
                                       Latest finish = 3/18/83
       Slack time = 30 Weeks
    Prerequisites = Job #17, ANALYSIS OF ITPP
                   Job #49, ASARC/DSARC 2
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #48, DEVELOP SUBCOUSES FOR ACCP
-----
                                      Earliest start = 8/6/82
         Duration = 2 Weeks
                                     Earliest finish = 8/20/82

    Work Completed = 0 Weeks

                                        Latest start = 3/25/83
 On critical path = No
       Slack time = 33 Weeks
                                       Latest finish = 4/8/83
    Prerequisites = Job #45, ROC
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #69, CONDUCT OT 2
         Duration = 6 Weeks
                                       Earliest start = 1/21/83
                                      Earliest finish = 3/ 4/83
   Work Completed = 0 Weeks
                                         Latest start = 3/11/83
  On critical path = No
                                         Latest finish = 4/22/83
      Slack time = 7 Weeks
     Prerequisites = Job #47, TDR/LR DEVELOPMENT
                   Job #49, ASARC/DSARC 2
                   Job 458, INITIATE TEC DEVELOPMENT
                   Job #59, DEVELOP UNIT TRNG STRATEGY
                    Job #60, SUBMT SPPT (FAC.) REQ TO MACOM
                    Job 462, DEVELOP/VALIDATE DEP (SPAS)
                    Job #63, PREPARE DRAFT CT (ARTEP) PACK.
                    Job #64, IDEN TRNG ISSUES FOR OT 2/CTEA
                    Job #65, NET START/NETT
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #70, VALIDATE/TEST AMMO AT OT 2
        Duration = 2 Weeks
                                       Earliest start = 1/21/83
   Work Completed = 0 Weeks
                                      Earliest finish = 2/4/83
                                         Latest start = 4/8/83
  On critical path = No
                                         Latest finish = 4/22/83
       Slack time = 11 Weeks
     Prerequisites = Job #47, TDR/LR DEVELOPMENT
                    Job #49, ASARC/DSARC 2
                    Job #58, INITIATE TEC DEVELOPMENT
                    Job #59, DEVELOP UNIT TRNG STRATEGY
                    Job #60, SUBMT SPPT (FAC.) REQ TO MACOM
                    Job #62, DEVELOP/VALIDATE DEP (SPAS)
                    Job #63, PREPARE DRAFT CT (ARTEP) PACK
                    Job #64, IDEN TRNG ISSUES FOR OT 2/CTEA
                    Job #65, NET START/NETT
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
       Direct cost = $0
Job #71, VALIDATE TEC LESSONS AT OT 2
B-15
      Duration = 2 Weeks
                                       Earliest start = 1/21/83
                                       Earliest finish = 2/ 4/83
    Work Completed = 0 Weeks
```

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Latest Statt . Tr eres On critical path = No Slack time . 11 Weeks Latest finish = 4/22/83 Prerequisites = Job #47, TDR/LR DEVELOPMENT Job #49, ASARC/DSARC 2 Job #58, INITIATE TEC DEVELOPMENT Job #59, DEVELOP UNIT TRNG STRATEGY Job #60, SUBMT SPPT (FAC.) REQ TO MACOM Job #62, DEVELOP/VALIDATE DEP (SPAS) Job #64, IDEN TRNG ISSUES FOR OT 2/CTEA Job #65, NET START/NETT Job #68, DEVELOP SUBCOUSES FOR ACCP Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #72, VALIDATE CT PACK. (ARTEP)/OT 2 _____ Earliest start = 1/21/83 Duration = 2 Veeks Earliest finish = 2/4/83 Work Completed = 0 Weeks Latest start = 4/8/83 On critical path = No Latest finish = 4/22/83 Slack time = 11 Weeks Prerequisites = Job #47, TDR/LR DEVELOPMENT Job #49, ASARC/DSARC 2 Job 458, INITIATE TEC DEVELOPMENT Job #59, DEVELOP UNIT TRNG STRATEGY Job #60, SUBMT SPPT (FAC.) REQ TO MACON Job #62, DEVELOP/VALIDATE DEP (SPAS) Job #63, PREPARE DRAFT CT (ARTEP) PACK. Job #64, IDEN TRNG ISSUES FOR OT 2/CTEA Job #65, NET START/NETT Manpower skills = none Total effort = none

Manpower cost = \$0.0 Direct cost = \$0

Job #73, VALIDATE TD EFFECTIVENESS/OT 2

-----Duration = 2 Weeks Earliest start = 1/21/83 Work Completed = 0 Weeks Earliest finish = 2/4/83On critical path = No Latest start = 4/8/83 Slack time = 11 Weeks Latest finish = 4/22/83 Prerequisites = Job #47, TDR/LR DEVELOPMENT Job #49, ASARC/DSARC 2 Job #58, INITIATE TEC DEVELOPMENT

Job #59, DEVELOP UNIT TRNG STRATEGY

```
Job #62, DEVELOP/VALIDATE DEP (SPAS)
                    Job #63, PREPARE DRAFT CT (ARTEP) PACK.
                    Job #64, IDEN TRNG ISSUES FOR OT 2/CTEA
                    Job #65, NET START/NETT
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #74, VALIDATE ATLP CHANGES AT OT 2
                                         Earliest start = 1/21/83
         Duration = 2 Weeks
   Work Completed = 0 Weeks
                                        Earliest finish = 2/4/83
                                           Latest start = 4/8/83
 On critical path = No
                                          Latest finish = 4/22/83
       Slack time = 11 Weeks
     Prerequisites = Job #47, TDR/LR DEVELOPMENT
                    Job #49, ASARC/DSARC 2
                    Job #58, INITIATE TEC DEVELOPMENT
                    Job #59, DEVELOP UNIT TRNG STRATEGY
                    Job #60, SUBMT SPPT (FAC.) REQ TO MACON
                    Job #62, DEVELOP/VALIDATE DEP (SPAS)
                    Job #63, PREPARE DRAFT CT (ARTEP) PACK.
                    Job #64, IDEN TRNG ISSUES FOR OT 2/CTEA
                    Job #65, NET START/NETT
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #75, REFINE CONSTRUCTION REQ AT OT2
        Duration = 2 Weeks
                                         Earliest start = 10/ 1/82
   Work Completed = 0 Weeks
                                        Earliest finish = 10/15/82
                                           Latest start = 4/8/83
  On critical path = No
                                          Latest finish = 4/22/83
        Slack time = 27 Weeks
     Prerequisites = Job #47, TDR/LR DEVELOPMENT
                    Job #47, ASARC/DSARC 2
                     Job 058, INITIATE TEC DEVELOPMENT
                     Job #59, DEVELOP UNIT TRNG STRATEGY
                     Job $60, SUBMT SPPT (FAC.) REQ TO MACOM
                     Job #62, DEVELOP/VALIDATE DEP (SPAS)
                     Job #63, PREPARE DRAFT CT (ARTEP) PACK.
                     Job #64, IDEN TRNG ISSUES FOR OT 2/CTEA
                     Job #66, DAAPP DISTRIBUTION COMPLETE
   Manpower skills = none
      Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #76, UPDATE CTEA (FSD)
------
          Duration = 2 Weeks
                                          Earliest start = 3/4/83
    Work Completed = 0 Weeks
                                         Earliest finish = 3/18/83
  On critical path = No
                                           Latest start = 4/22/83
        Slack time = 7 Weeks
                                           Latest finish = 5/ 6/83
     Prerequisites = Job #64, IDEN TRNG ISSUES FOR OT 2/CTEA
                    Job #69, CONDUCT OT 2
                    Job #125, BETWEEN OT 2 (69) & STEA (75)
   Manpower skills = none
      Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
                                    B - 17
Job #77, DETERMINE ETM/SPA DELIVERABLES
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Job 648, SUBMT SPFT (FAC.) REQ TO MACOM

```
Duration # 1 Week
                                       Earliest start = 3/ 4/83
   Work Completed = 0 Weeks
                                      Earliest finish = 3/11/83
 On critical path = No
                                         Latest start = 5/ 6/83
                                        Latest finish = 5/13/83
     Slack time = 9 Weeks
    Prerequisites = Job 462, DEVELOP/VALIDATE DEP (SPAS)
                   Job #69, CONDUCT OT 2
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job 478, MOS MILESTONES FOR TO IN ITPP
--------
        Duration = 1 Week
                                        Earliest start = 3/4/83
  Work Completed = 0 Weeks
In critical path = No
Slack time = 16 Weeks
                                       Earliest finish = 3/11/83
 On critical path = No
                                         Latest start = 6/24/83
                                         Latest finish = 7/ 1/83
    Prerequisites = Job #73, VALIDATE TD EFFECTIVENESS/OT 2
                   Job #69, CONDUCT OT 2
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #79, INITIATE FACILITIES CONSTR
       Duration = 1 Week
                                        Earliest start = 10/15/82
                                      Earliest finish = 10/22/82
   Work Completed = 0 Weeks
  On critical path = No
                                         Latest start = 7/15/83
      Slack time = 39 Weeks
                                         Latest finish = 7/22/83
    Prerequisites = Job 975, REFINE CONSTRUCTION REG AT 0T2
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #80, ASARC/DSARC 3
   Duration = 1 Week
Work Completed = 0 Weeks
                                        Earliest start = 3/18/83
                                       Earliest finish = 3/25/83

Latest start = 5/6/83

Latest finish = 5/13/83
  On critical path = No
       Slack time = 7 Weeks
    Prerequisites = Job #69, CONDUCT OT 2
                   Job 976, UPDATE CTEA (FSD)
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #81, SUBMIT AMMO REQ FOR RSDNT TRNG
______
         Duration = 1 Week
                                        Earliest start = 3/4/83
    Work Completed = 0 Weeks
                                       Earliest finish = 3/11/83
                                Latest Start = 6/24/83
  On critical path = No
        Slack time = 16 Weeks
                                         Latest finish = 7/ 1/83
     Prerequisites = Job #70, VALIDATE/TEST AMMO AT OT 2
                    Job #69, CONDUCT OT 2
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job $82, SOW INPUT FOR NET REQUIREMENT
        Duration = 1 Week B-18 Earliest finish = 4/ 1/83
    Work Completed = 0 Weeks
```

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On critical path = No
     Slack time a 7 Weeks
                                        Latest finish = 5/20/83
    Prerequisites = Job #80, ASARC/DSARC 3
                    Job 477, DETERMINE ETM/SPA DELIVERABLES
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #83, FINALIZE CTEA (P/D)
------
                                       Earliest start = 3/25/83
     Duration = 2 Weeks
   Work Completed = 0 Weeks
                                      Earliest finish = 4/ 8/83
                                          Latest start = 7/ 1/83
                             Latest start = 7/ 1/83
Latest finish = 7/15/83
  On critical path = No
      Slack time = 14 Weeks
    Prerequisites = Job #76, UPDATE CTEA (FSD)
              Job #80, ASARC/DSARC 3
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #84, CONDUCT OT 3
   Duration = 6 Weeks
Work Completed = 0 Weeks
                                        Earliest start = 4/ 1/83
                                      Earliest finish = 5/13/83
                                          Latest start = 5/20/83
  On critical path = No
                                         Latest finish = 7/ 1/83
      Slack time = 7 Veeks
     Prerequisites = Job #80, ASARC/DSARC 3
                    Job #82, SOW INPUT FOR NET REQUIREMENT
   Manpower skills = none
    Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #85, ATL FOR ITP
   Duration = 1 Week
Work Completed = 0 Weeks
                                        Earliest start = 3/11/83
                                      Earliest finish = 3/18/83
                                          Latest start = 7/ 1/83
  On critical path = No
                                          Latest finish = 7/8/83
       Slack time = 16 Veeks
     Prerequisites = Job #67, CAD FOR ITP
                    Job #81, SUBMIT AMMO REG FOR REDNT TRNG
                    Job #84, MILESTONES FOR ACCP IN ITPP
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
       Direct cost = 50
 Job #86, MILESTONES FOR ACCP IN ITPP
    Duration = 1 Week
Work Completed = 0 Weeks
                                        Earliest start = 3/ 4/83
                                       Earliest finish = 3/11/83
                                          Latest start = 6/ 3/83
  On critical path = No
       Slack time = 13 Veeks
                                          Latest finish = 6/10/83
     Prerequisites = Job 068, DEVELOP SUBCOUSES FOR ACCP
                    Job #69, CONDUCT OT 2
   Manpower skills = none
                                 8-19
     Total effort = none
```

Latest start = 5/13/83

```
Direct cost = $0
Job #87, UPDATED ITPP
------
                                      Earliest start = 3/11/83
       Duration = 1 Veek
                                    Earliest finish = 3/18/83
  Work Completed = 0 Weeks
                                        Latest start = 7/ 1/83
 On critical path = No
      Slack time = 16 Weeks
                                        Latest finish = 7/ 8/83
    Prerequisites = Job #67, CAD FOR ITP
                   Job #78, MOS MILESTONES FOR TO IN ITPP
                   Job #81, SUBMIT AMMO REQ FOR RSDNT TRNG
                   Job #86, MILESTONES FOR ACCP IN ITPP
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #88, FINALIZE DEP (SPAS)
_____
                                       Earliest start = 4/ 1/83
         Duration = 1 Week
                                     Earliest finish = 4/8/83
   Work Completed = 0 Weeks
  On critical path = No
                                        Latest start = 6/10/83
       Slack time = 10 Veeks
                                        Latest finish = 6/17/83
    Prerequisites = Job #82, SOW INPUT FOR NET REQUIREMENT
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #89, TRNG PRGM WRKSHT (TPW) FOR ITP
------
        Duration = 1 Week
                                       Earliest start = 3/25/83
   Work Completed = 0 Weeks
                                      Earliest finish = 4/ 1/83
                                        Latest start = 7/8/83
  On critical path = No
                                        Latest finish = 7/15/83
      Slack time = 15 Weeks
    Prerequisites = Job #87, UPDATED ITPP
                   Job #80, ASARC/DSARC 3
                   Job #85, ATL FOR ITP
   Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job 490, ASARC/DSARC 3A
        Duration = 1 Week
                                       Earliest start = 5/13/83
   Work Completed = 0 Weeks
                                      Earliest finish = 5/20/83
  On critical path = No
                                         Latest start = 7/15/83
      Slack time = 9 Weeks
                                        Latest finish = 7/22/83
    Prerequisites = Job 083, FINALIZE CTEA (P/D)
                   Job #84, CONDUCT OT 3
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #91, TRGT AUD VERIFIC FOR SPA TMS
   Duration = 1 Week
Work Completed = 0 Weeks
n critical path = No
                                       Earliest start = 4/8/83
                                     Earliest finish = 4/15/83
                                      Latest start = 8/5/83
  On critical path = No
     Slack time = 17 Weeks
                                        Latest finish = 8/12/83
     Prerequisites = Job #88, FINALIZE DEP (SPAS)
                   Job #80, ASARC/DSARC 3
```

Manpower cost = \$0.0

B-20

Manpower skills = none

```
Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #92, SUBMIT POI (FOR ITP)
-----
                                       Earliest start = 4/ 1/83
       Duration = 1 Week
  Work Completed = 0 Weeks
                                      Earliest finish = 4/8/83
                                         Latest start = 7/15/83
 On critical path = No
                                        Latest finish = 7/22/83
       Slack time = 15 Weeks
    Prerequisites = Job 089, TRNG PRGM WRKSHT (TPW) FOR ITP
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #93, PRODUCE TEC
         Duration = 3 Weeks
                                       Earliest start = 5/13/83
Earliest finish = 6/3/83
   Work Completed = 0 Weeks
 On critical path = No
                                         Latest start = 7/ 1/83
                                         Latest finish = 7/22/83
      Slack time = 7 Weeks
     Prerequisites = Job #71, VALIDATE TEC LESSONS AT OT 2
                   Job #84, CONDUCT OT 3
  Manpower skills = none
    Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job 894, TRADOC APPROVAL OF FM OUTLINES
------
         Duration = 1 Week
                                        Earliest start = 2/4/83
      Latest finish = 2/11/83
Latest start = 4/29/83
Slack time = 12 Weeks
Termonicita-
   Work Completed = 0 Weeks
  On critical path * No
    Prerequisites = Job 074, VALIDATE ATLP CHANGES AT OT 2
   Manpower skills = none
    Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #95, SUBMIT ACCP SUBCRSES TO ATSC
       Duration = 1 Week
                                        Earliest start = 3/11/83
   Work Completed = 0 Weeks
on critical path = No
Slack time = 13 Weeks
                                       Earliest finish = 3/18/83
 On critical path * No
                                         Latest start = 6/10/83
                                         Latest finish = 6/17/83
    Prerequisites = Job #86, MILESTONES FOR ACCP IN ITPP
   Manpower skills = none
     Total effort = none
     Manpower cost = 10.0
      Direct cost = $0
Job 496, DRAFT SM/TG/JB TO ATSC
-----
        Duration = 1 Week
                                        Earliest start = 3/25/83
  Work Completed = 0 Weeks
On critical path = No
                                       Earliest finish = 4/ 1/83
                                         Latest start = 6/24/83
      Slack time = 13 Weeks
                                         Latest finish = " '83
    Prerequisites = Job #21, REVIEW FEA FOR SM. TG, & JB
                   Job #80, ASARC/DSARC 3
   Manpower skills = none
     Total effort = none
```

Manpower cost = \$0.0

Direct cost = \$0

B-21

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Job 497, START RESIDENT TRAINING (SRT)
                                      **** CRITICAL ****
-----
         Duration = 3 Weeks
                                       Earliest start = 7/22/83
   Work Completed = 0 Weeks
                                      Earliest finish = 8/12/83
 On critical path = Yes
                                        Latest start = 7/22/83
      Slack time = none
                                         Latest finish = 8/12/83
    Prerequisites = Job #90, ASARC/DSARC 3A
                   Job #92, SUBMIT POI (FOR ITP)
                   Job #79, INITIATE FACILITIES CONSTR
                   Job #93, PRODUCE TEC
                   Job #126, 60 MONTHS BETWEEN #27 AND #97
                   Job #129, 42 MONTHS BETWEEN #60 AND #97
                    Job #130, 30 MONTHS BETWEEN #11 AND #97
                   Job #131, 18 MONTHS BETWEEN #67 AND #97
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #98, DISTRIBUTE TEC
     Duration = 1 Week
                                       Earliest start = 6/3/83
                               Earliest start = 6/3/83
Earliest finish = 6/10/83
   Work Completed = 0 Weeks
                                         Latest start = 8/12/83
  On critical path = No
      Slack time = 10 Weeks
                                        Latest finish = 8/19/83
     Prerequisites = Job #93, PRODUCE TEC
                    Job #90, ASARC/DSARC JA
                    Job #92, SUBMIT POI (FOR ITP)
                    Job #79, INITIATE FACILITIES CONSTR
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
       Direct cost = $0
Job 699, ATSC APPROVAL OF ACCP SUBCRSES
------
         Duration = 1 Week
                                       Earliest start = 4/8/83
    Work Completed = 0 Weeks
                                      Earliest finish = 4/15/83
                              Latest start = 6/17/83
  On critical path = No
        Slack time = 10 Weeks
                                        Latest finish = 6/24/83
     Prerequisites = Job #88, FINALIZE DEP (SPAS)
                   Job #95, SUBMIT ACCP SUBCRSES TO ATSC
   Manpower skills = none
     Total effort = none
     Manpower cost = 50 0
      Direct cost = $0
Job #100, COORDINATING DRAFT OF FMS
         Duration = 6 Weeks
                                       Earliest start = 2/11/83
   Work Completed = 0 Weeks
                                      Earliest finish = 3/25/83
  On critical path = No Latest start = 6/17/83

Slack time = 18 Weeks Latest finish = 7/29/83
                                         Latest finish = 7/29/83
    Prerequisites = Job #94, TRADOC APPROVAL OF FM OUTLINES
   Manpower skills = none
     Total effort = none
                                B-22
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Manpower cost = \$0.0

Direct cost = \$0 Job #101, SUBMIT ACCP NEED TO ATSC Duration = 1 Veek Work Completed = 0 Veeks On critical path = No Earliest start = 4/15/83 Earliest finish = 4/22/83 Latest start = 6/24/83Slack time = 10 Weeks Latest finish = 7/ 1/83 Prerequisites = Job #99, ATSC APPROVAL OF ACCP SUBCRSES Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job \$102, VALIDATE ETM/NET/SPAS ______ Earliest start = 4/15/83 Duration = 1 Week Earliest finish = 4/22/83 Latest start = 8/12/83 Latest finish = 8/19/83 Work Completed = 0 Weeks On critical path = No Slack time = 17 Weeks Prerequisites = Job #91, TRGT AUD VERIFIC FOR SPA TMS Job 680, ASARC/DSARC 3 Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = 10 Job #103, CERT/MAST PRGRM FOR UNIT TRNG -----Duration = 2 Weeks Earliest start = 5/20/83 Earliest finish = 6/ 3/83 Work Completed = 0 Weeks ritical path = No Latest start = 8/5/83 Slack time = 11 Weeks Latest finish = 8/19/83 On critical path = No Prerequisites = Job #59, DEVELOP UNIT TRNG STRATEGY Job #90, ASARC/DSARC 3A Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #104, COMPREHENSIVE DRAFT OF FMS ______ Earliest start = 3/25/83 Duration = 1 Week Work Completed = 0 Weeks in critical path = No Slack time = 18 Weeks Earliest finish = 4/ 1/83 Latest start = 7/29/83 On critical path = No Latest finish = 8/5/83 Prerequisites = Job #100, COORDINATING DRAFT OF FMS Manpower skills = none Total effort = none Manpower cost = 10.0 Direct cost = \$0 Job \$105, ATSC COMMENTS ON SM/TG/JB Duration = 9 www... Work Completed = 0 Weeks Earliest start = 4/ 1/83 Earliest finish = 4/29/83 Latest start = 7/ 1/83 On critical path = No Latest finish = 7/29/83Prerequisites = Job #96, DRAFT SM/TG/JB TO ATSC

Manpower skills = none
Total effort = none
Manpower cost = \$0.0
Direct cost = \$0

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Direct cost = 30

Job #106, CRM OF ACCP TO ATSC

B-23

Duration = 3 Weeks
Work Completed = 0 Weeks Earliest start = 4/22/83 Earliest finish = 5/13/83 Latest start = 7/ 1/83 On critical path = No Slack time = 10 Weeks Latest finish = 7/22/83 Precequisites = Job #101, SUBMIT ACCP NEED TO ATSC Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #107, ACCP READY FOR DISTRIBUTION Duration = 4 Weeks Earliest start = 5/13/83 Work Completed = 0 Weeks
On critical path = No Earliest finish = 6/10/83Latest start = 7/22/83 Slack time = 10 Weeks Latest finish = 8/19/83 Prerequisites = Job #186, CRM OF ACCP TO ATSC Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job \$108, INITIATE/PRINT FMS Earliest start = 4/ 1/83 Earliest finish = 4/15/83 Latest start = 8/ 5/83 Duration = 2 Weeks Work Completed = 0 Weeks On critical path = No Slack time = 18 Weeks Latest finish = 8/19/83 Prerequisites = Job #104, COMPREHENSIVE DRAFT OF FMS Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #109, CRM FOR SM/TG/JB TO ATSC ______ Duration = 3 Weeks Earliest start = 4/29/83Work Completed = 0 Weeks Earliest finish = 5/20/83 On critical path = No Latest start = 7/29/83Slack time = 13 Weeks Latest finish = 8/19/83 Prerequisites = Job \$105, ATSC COMMENTS ON SM/TG/JB Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #110, DISTRIBUTE ARTEP & CT PACKAGE **** CRITICAL **** ,,......... Duration = 1 Week Earliest start = 8/12/83 Work Completed = 0 Weeks Earliest finish = 8/19/83On critical path = Yes Latest start = 8/12/83 Latest finish = 8/19/83 Slack time = none Prerequisites = Job #72, VALIDATE CT PACK (ARTEP)/OT 2 Job 497, START RESIDENT TRAINING (SRT) Manpower skills = none Total effort = none Manpower cost = \$0.0

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Direct cost = \$0

```
**** CRITICAL ****
Job #111, FIRST UNIT EQUIPPED (FUE)
         Duration = 1 Week
                                         Earliest start = 8/19/83
                                        Earliest finish = 8/26/83
   Work Completed = 0 Weeks
 On critical path = Yes
                                           Latest start = 8/19/83
       Slack time = none
                                           Latest finish = 8/26/83
     Prerequisites = Job #107, ACCP READY FOR DISTRIBUTION
                    Job #109, CRM FOR SM/TG/JB TO ATSC
                    Job #110, DISTRIBUTE ARTEP & CT PACKAGE
                     Job #103, CERT/MAST PRGRM FOR UNIT TRNG
                    Job #97, START RESIDENT TRAINING (SRT)
                    Jot #102, VALIDATE ETM/NET/SPAS
                     Job #108, INITIATE/PRINT FMS
                    Job #98, DISTRIBUTE TEC
                     Job #132, 15 MONTHS BETWEEN #94 AND #111
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #112, DELIVER TMS (SPAS)
         Duration = 1 Week
                                         Earliest start = 8/19/83
   Work Completed = 0 Weeks
                                        Earliest finish = 8/26/83
  On critical path = No
                                           Latest start = 10/ 7/83
       Slack time = 7 Weeks
                                           Latest finish = 10/14/83
     Prerequisites = Job #97, START RESIDENT TRAINING (SRT)
                    Job #102, VALIDATE ETM/NET/SPAS
                     Job #103, CERT/MAST FRGRM FOR UNIT TRNG
                     Job #107, ACCP READY FOR DISTRIBUTION
                     Job 2108, INITIATE/PRINT FMS
                     Job #109, CRM FOR SM/TG/JB TO ATSC
                     Job #110, DISTRIBUTE ARTEP & CT PACKAGE
   Manpower skills = none
      Total effort = none
     Manpower cost = $0.0
      Direct cost = $0
Job #113, DISTRIBUTE FMS
          Duration = 6 Weeks
                                         Earliest start = 8/19/83
   Work Completed = 0 Weeks
                                        Earliest finish = 9/30/83
                                           Latest start = 9/ 9/83
  On iritical path = No
       Slack time = 3 Weeks
                                           Latest finish = 10/21/83
     Prerequisites = Job #107, ACCP READY FOR DISTRIBUTION
                    Job $102, VALIDATE ETM/NET/SPAS
                     Job #103, CERT/MAST PRGRM FOR UNIT TRNG
                     Job #97, START RESIDENT TRAINING (SRT)
                     Job #110, DISTRIBUTE ARTEP & CT PACKAGE
                     Job #198, INITIATE/PRINT FMS
                     Job #109 CRM FOR SM/TC/JB TO ATSC
   Manpower skills = none
                                  B - 25
```

```
Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #114, COMPLETE DIST OF SM/TG/JB
-----
   Duration = 6 Weeks
Work Completed = 0 Weeks
In critical path = No
Slack time = 3 Weeks
                                       Earliest start = 8/19/83
                                     Earliest finish = 9/30/83
 On critical path = No
                                        Latest start = 9/ 9/83
                                        Latest finish = 10/21/83
    Prerequisites = Job #107, ACCP READY FOR DISTRIBUTION
                   Job #102, VALIDATE ETM/NET/SPAS
                   Job $97, START RESIDENT TRAINING (SRT)
                   Job #108, INITIATE/PRINT FMS
                   Job #109, CRM FOR SM/TG/JB TO ATSC
                   Job #110, DISTRIBUTE ARTEP & CT PACKAGE
                   Job #103, CERT/MAST PRGRM FOR UNIT TRNG
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #115, SQT TROOP VALIDATION
                                        **** CRITICAL ****
-----
      Duration = 3 Weeks
                                      Earliest start = 8/26/83
  Work Completed = 0 Weeks
                                      Earliest finish = 9/16/83
 On critical path = Yes
                                        Latest start = 8/26/83
       Slack time = none
                                         Latest finish = 9/16/83
    Prerequisites = Job #111, FIRST UNIT EQUIPPED (FUE)
  Manhower skills = none
    Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #116, SQT CRM TO ATSC
                                        **** CRITICAL ****
     Duration = 1 Week
                                      Earliest start = 9/16/83
   Work Completed = 0 Weeks
                                     Earliest finish = 9/23/83
 On critical path = Yes
                                        Latest start = 9/16/83
      Slack time = none
                                        Latest finish = 9/23/83
    Prerequisites = Job #115, SQT TROOP VALIDATION
   Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #117, SQT TEMPLATE TO ATSC
                                        **** CRITICAL ****
         Duration = 1 Week
                                      Earliest start = 9/23/83
   Work Completed = 0 Weeks
                                     Earliest finish = 9/30/83
  On critical path = Yes
                                        Latest start = 9/23/83
       Slack time = none
                                        Latest finish = 9/3G/83
    Prerequisites = Job #116, SQT CRM TO ATSC
   Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = 50
Job #118, SQT DISTRIBUTION COMPLETE
                                        **** CRITICAL ****
Duration = 3 Weeks
                                      Earliest start = 9/30/83
                                Earliest finish = 10/21/83
   Work Completed = 0 Weeks
 On critical path = Yes Latest start = 9/30/63
Slack time = none B=2C Latest finish = 10/21/83
```

Prerequisites = Job #117, SQT TEMPLATE TO ATSC

Manpower skills = none

Manpower cost = \$0.0 Direct cost = \$0 Job #119, EVALUATE ARTEP & CT PACKAGE **** CRITICAL **** Duration = 12 Weeks Earliest start = 8/26/83 Earliest finish = 11/18/83 Work Completed = 0 Weeks On critical path = Yes Latest start = 8/26/83 Slack time = none Latest finish = 11/18/83 Prerequisites = Job #110, DISTRIBUTE ARTEP & CT PACKAGE Job #111, FIRST UNIT EQUIPPED (FUE) Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job #120, PREPARE COORD. DRAFT ARTEP ***** CRITICAL ***** -----Duration = 6 Weeks Earliest start = 11/18/83 Work Completed = 0 Weeks Earliest finish = 12/30/83 On critical path = Yes Latest start = 11/18/83 Slack time = none Latest finish = 12/30/83 Prerequisites = Job #119, EVALUATE ARTEP & CT PACKAGE Job #111, FIRST UNIT EQUIPPED (FUE) Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 Job \$121, PROVIDE NET/ETM/SPAS TO UNITS -----Duration = 1 Week
Work Completed = 0 Weeks
n critical path = No
Slack time = 7 Weeks Earliest start = 8/26/83 Earliest finish = 9/ 2/83 On critical path = No Latest start = 10/14/83 Latest finish = 10/21/83Prerequisites = Job #112, DELIVER TMS (SPAS) Job \$111, FIRST UNIT EQUIPPED (FUE) Manpower skills = none Total effort = none Manpower cost = \$0.0 Direct cost = \$0 **** CRITICAL **** Job #122, INITIAL OPERATNG CAPBLTY (IOC) Duration = 0 Weeks Earliest start = 10/21/83 Work Completed = 0 Weeks Earliest finish = 10/21/83 On critical path = Yes Latest start = 10/21/83 Slack time = none Latest finish = 10/21/83 Prerequisites = Job #111, FIRST UNIT EQUIPPED (FUE) Job #121, PROVIDE NET/ETM/SPAS TO UNITS Job #113, DISTRIBUTE FMS Job #114, COMPLETE DIST. OF SM/TG/JB Job #118, SQT DISTRIBUTION COMPLETE Manpower skills = none

Total effort = none

Total effort = none
Manpower cost = \$0 0
Direct cost = \$0

```
Jub #123, BETWEEN FEA (15) & OT 1 (29)
_____
       Duration = 0 Weeks
                                      Earliest start = 5/28/82
                                    Earliesc finish = 5/28/82
   Work Completed = 0 Weeks
                                        Latest start = 7/16/82
 On critical path = No
                                        Latest finish = 7/16/82
       Slack time = 7 Weeks
    Prerequisites = Job #17, ANALYSIS OF ITPP
                   Job #21, REVIEW FEA FOR SM, TG, & JB
                   Job #22, REVIEW FEA FOR SQT
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #124, BETWEEN OT 1 (29) & M&CTA (41)
______
         Duration = 0 Weeks
                                       Earliest start = 6/18/82
   Work Completed = 0 Weeks
                                     Earliest finish = 6/18/82
  On critical path = No
                                        Latest start = 8/27/82
      Slack time = 10 Veeks
                                        Latest finish = 8/27/82
    Prerequisites = Job #30, VALIDATE AMMO REG AT OT 1
                   Job #31, VALIDATE PDEP (SPAS) AT OT 1
                   Job #32, VALIDATE TEC REG AT OT 1
                   Job #33, EVALUATE CT PACKAGE AT OT 1
                   Job #34, VALIDATE TD CONCEPT AT OT 1
                   Job #35, VALIDATE ATLP CHANGES AT OT 1
                   Job #36, VALIDATE DAAPP REQ AT OT 1
                   Job #37, VALIDATE CONSTR REQ AT OT 1
   Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = 50
Job #125, BETWEEN OT 2 (69) & CTEA (76)
                                       Earliest start = 3/ 4/83
         Duration = 0 Weeks
   Work Completed = 0 Weeks
                                     Earliest finish = 3/4/83
                                        Latest start = 4/22/83
  On critical path = No
                                        Latest finish = 4/22/83
       Slack time = 7 Weeks
     Prerequisites = Job #69, CONDUCT OT 2
                    Job #70, VALIDATE/TEST AMMO AT OT 2
                    Job #71, VALIDATE TEC LESSONS AT OT 2
                    Job 472, VALIDATE CT PACK. (ARTEP)/OT 2
                    Job #73, VALIDATE TD EFFECTIVENESS/OT 2
                    Job #74, VALIDATE ATLP CHANGES AT OT 2
                    Job #75, REFINE CONSTRUCTION REQ AT OT2
   Manpower skills = none
     Total effort = none
     Manpower cost = $0.0
       Direct cost = $0
Job #126, 60 MONTHS BETWEEN #27 AND #97
                                        **** CRITICAL ****
         Duration = 60 Weeks
                                       Earliest start = 5/28/82
    Work Completed = 0 Weeks
                                       Earliest finish = 7/22/83
  On critical path = Yes
                                         Latest start = 5/28/82
       Slack time = none
                                         Latest finish = 7/22/83
     Precequisites = Job #27, SUBMIT CONSTRCTN REQ TO MACOM
   Manpower skills = none
     Total effort = none
     Manpower cost = $0 0
       Direct cost = 50
Job #127, 23 MONTHS BETWEEN #39 AND #65
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```

Duration = 23 Weeks B=28 Earliest start = 7/16/82

```
Work Completed = 0 Weeks
                                        Earliest finish = 12/24/82
 On critical path = No
                                          Latest start = 9/10/82
      Slack time = 8 Weeks
                                          Latest finish = 2/18/83
    Prerequisites = Job #39, SUBMIT TEC REQ TO ATSC
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
     Direct cost = $0
Job #128, 20 MONTHS BETWEEN #54 AND #65
      Duration = 20 Weeks
                                        Earliest start = 8/13/82
   Work Completed = 0 Weeks
                                        Earliest finish = 12/31/82
  On critical path = No
Slack time = 7 Weeks
                                         Latest start = 10/ 1/82
                                          Latest finish = 2/18/83
    Prerequisites = Job $54, PREPARE TEC DEVELOP. CONTRACT
  Manpower skills = none
    Total effort = none
    Manpower cost = $0.0
    Direct cost = $0
Job #129, 42 MONTHS BETWEEN #60 AND #97
         Duration = 42 Weeks
                                         Earliest start = 6/25/82
   Work Completed = 0 Weeks
                                       Earliest finish = 4/15/83
       Slack time = 14 Veeks
  On critical path = No
                                          Latest start = 10/ 1/82
                                         Latest finish = 7/22/83
    Prerequisites = Job 860, SUBMT SPFT (FAC.) REQ TO MACOM
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #130, 30 MONTHS BETWEEN #11 AND #97
        Duration = 30 Weeks
                                        Earliest start = 1/8/82
                                      Earliest start = 1/8/82
Earliest finish = 8/6/82
   Work Completed = 0 Weeks
                                         Latest start = 12/24/82
  On critical path = No
       Slack time = 50 Weeks
                                         Latest finish = 7/22/83
    Prerequisites = Job #11, INDVDL TRNG PLN PRPOSAL (ITPP)
  Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #131, 18 MONTHS BETWEEN #67 AND #97
        Duration = 18 Weeks
                                        Earliest start = 8/20/83
   Work Completed = 0 Weeks
                                       Earliest finish = 12/24/82
  On critical path = No
                                          Latest start = 3/18/83
       Slack time = 30 Weeks
                                          Latest finish = 7/22/83
    Prerequisites = Job #67, CAD FOR ITP
   Manpower skills = none
     Total effort = none
    Manpower cost = $0.0
      Direct cost = $0
Job #132, 15 MONTHS BETWEEN #94 AND #111
-------
   Duration = 15 Weeks Earliest start = 2/11/83
Work Completed = 0 Weeks Earliest finish = 5/27/83
  On critical path # No
       strical path = No Latest start = 5/6/83
Slack time = 12 Weeks Latest finish = 8/19/83
                                          Latest start = 5/6/83
   Prerequisites = Job #94, TRADOC APPROVAL OF FM OUTLINES
  Manpower skills = none
                                   B-29
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Total effort = none

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Manpower cost = \$0.0 Direct cost = \$0

Sorting order is Current order From the first job to the last job Jobs using all skills